

LBT-A10/A20

SERVICE MANUAL

*E Model
Australian Model*

These systems are composed of following models.

As for the service manual, it is issued for each component model, then, please refer to it.

	LBT-A10			LBT-A20		
	Latin American model (E2)	Australian model	Model for other countries	Latin American model (E2)	Australian model	Model for other countries
Stereo Deck Receiver	HST-A10			HST-A20		
Turntable	PS-LX49P				PS-LX49P	
CD Player	CDP-M33 or CDP-C322M (optional)					
Speakers	SS-D11			SS-D22		

SPECIFICATIONS

LBT-A10

General

Power requirements 110–120V/220–240VAC, adjustable with the VOLTAGE SELECTOR,
50 / 60 Hz
Power consumption 75W
Weight Approx. 6.9kg
Dimensions Approx. 355×290×325mm
(w/h/d, including projections)

Supplied accessories

45-rpm adaptor (1) (only for Latin American and Australian models)
Remote commander RM-S171 (1)
FM wire antenna (1)
AM loop antenna (1)
Batteries Sony SUM-3 (NS) (2)

LBT-A20

General

Power requirements 110–120V/220–240VAC, adjustable with the VOLTAGE SELECTOR,
50 / 60 Hz
Power consumption 120W
Weight Approx. 8.9kg
Dimensions Approx. 355×380×325mm
(w/h/d, including projections)

Supplied accessories

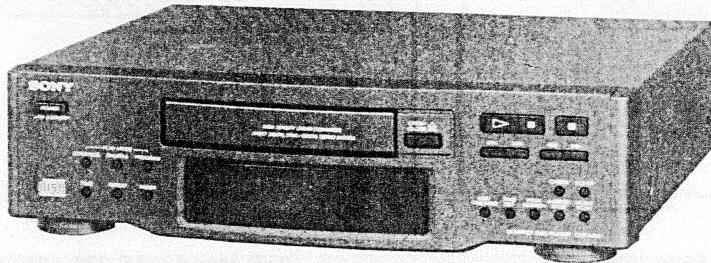
45-rpm adaptor (1) (only for Latin American and Australian models)
Remote commander RM-S271 (1)
FM wire antenna (1)
AM loop antenna (1)
Batteries Sony SUM-3 (NS) (2)
Design and specifications are subject to change without notice.

**COMPACT HiFi
STEREO SYSTEM**
SONY®

CDP-M33

SERVICE MANUAL

US Model
AEP Model
UK Model
E Model
Australian Model



Model Name Using Similar Mechanism	CDP - M54
CD Mechanism Name	CDM14L-5BD8A
Optical Pick-up Block Type	BU-5BD8A

SPECIFICATIONS

Compact disc player

Frequency response 2 Hz to 20 kHz 0.5 dB
Signal-to-noise ratio More than 93 dB
Dynamic range More than 90 dB
Harmonic distortion Less than 0.008%
Channel separation More than 90 dB

Outputs

LINE OUT (FIXED)
Output level 2 V (at 50 kilohms)
Load impedance over 10 kilohms

General

Power requirements U.S model:
120 V AC, 60 Hz
UK, Australian model :
240VAC, 50Hz
AEP, Italian model :
220 – 230VAC, 50/60 Hz
E, Saudi Arabia Model :
110 – 120 V/220 – 240 V
AC, adjustable with the
voltage selector, 50/60 Hz
Power consumption 11 W

Dimensions (approx., including projections)

355 X 95 X 325 mm (w/h/d)
(14 X 3 1/4 X 12 1/4 inches)

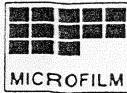
Weight (approx.) 3.2 kg (7 lbs 1 oz)

Supplied accessories

Audio cord (1) (2 phono plugs – 2
phono plugs)
AC plug adaptor (1) (except for the United
States and Australia)

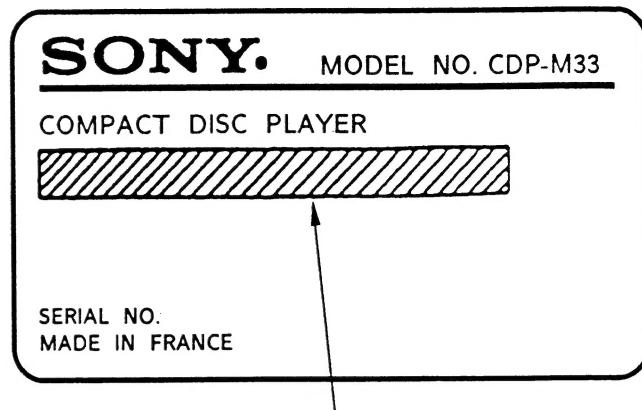
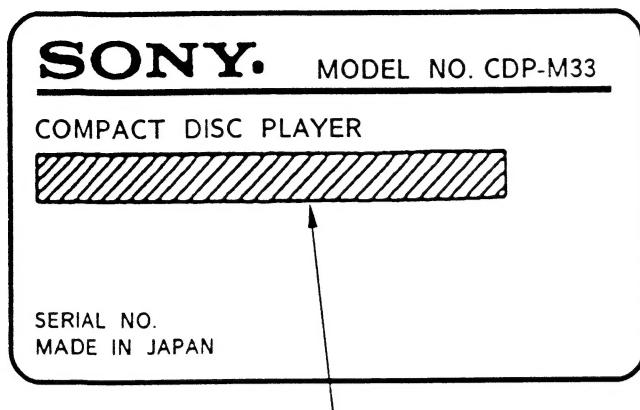
Design and specifications are subject to change
without notice.

COMPACT DISC PLAYER
SONY[®]



MODEL IDENTIFICATION

- Specification Label -



US Model : AC 120V 60Hz 11W

AEP, Italian Model : AC 220 - 230V ~ 50/60Hz

Australian Model : AC 240V ~ 50/60Hz

E, Saudi Arabia Model : AC 110 - 120V, 220 - 240V,
~ 50/60Hz 11W

AEP Model : AC 220 - 230V ~ 50/60Hz

UK Model : AC 240V, ~ 50/60Hz

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

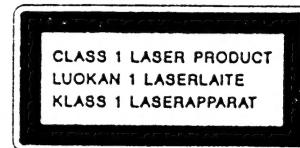
The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.

During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.

The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

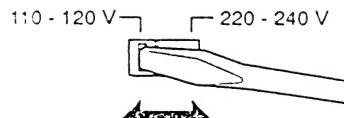
The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe more than 30cm away from the objective lens.



This Compact Disc player is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT label is located on the rear exterior.

E, Saudi Arabia Model

For customers of the model equipped with the voltage selector
Check to confirm that the voltage selector is set to the local power line voltage. If not, set the voltage selector to the correct position before connecting the AC power cord to a wall outlet.



SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:

Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

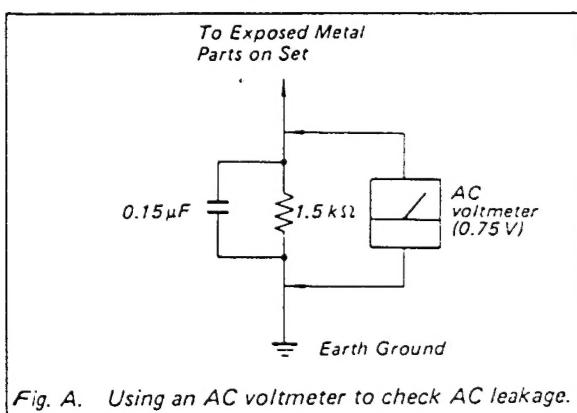


Fig. A. Using an AC voltmeter to check AC leakage.

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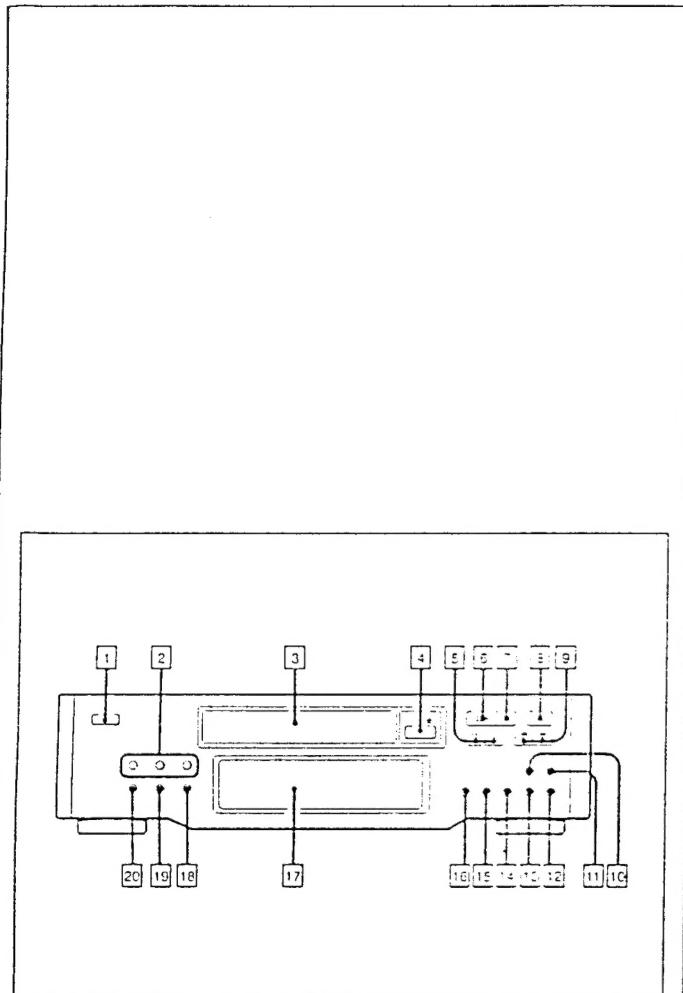
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SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK OR DOTTED LINE WITH MARK ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

SECTION 1 GENERAL

This section is extracted from instruction manual.



Identifying the Parts

Refer to the pages indicated in parenthesis for details.

Front Panel

- [1] POWER switch (16)
- [2] Play mode buttons
CONTINUE button (24, 28, 32, 50)
SHUFFLE button (24, 28, 32, 50)
PROGRAM button (28, 42)
- [3] Disc tray (16)
- [4] ▲ OPEN/CLOSE button (16)
- [5] ↪◀/▶(AMS*) buttons (20, 42)
- [6] ► (play) button (18)
- [7] ■ (pause) button (18)
- [8] ■ (stop) button (18)
- [9] ↪◀/▶(manual search) buttons (20, 40)
- [10] CHECK (program check) button (30)
- [11] CLEAR (program clear) button (30, 36)
- [12] MUSIC SCAN button (34)
- [13] A. SPACE/A. CUE button (22, 54)
- [14] PEAK SEARCH button (54)
- [15] TIME SET button (48, 52)
- [16] EDIT/TIME FADE button (46, 52)
- [17] Display window (16)
- [18] FADER button (40)
- [19] REPEAT button (38)
- [20] TIME button (18)

* AMS is the abbreviation of Automatic Music Sensor.

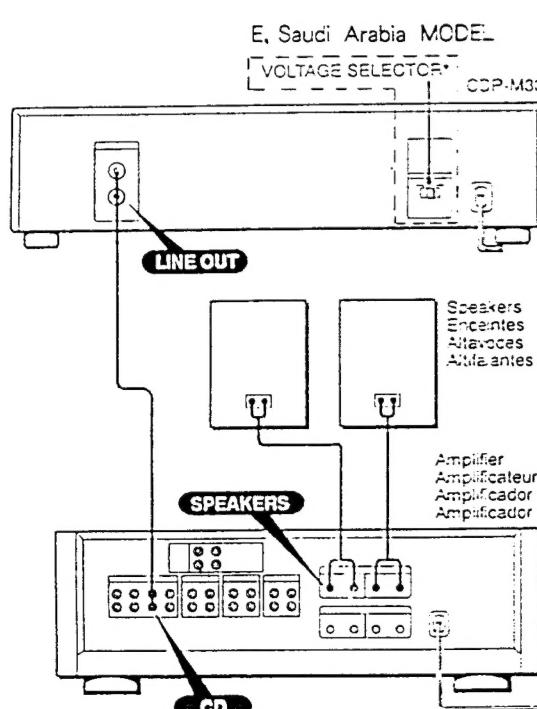
Hooking Up the System

Connect the unit to an amplifier as shown in Figure.

Notes on Connection

- Turn off the power of each unit before making connections. Connect the AC power cord last. For the model supplied with the plug adaptor, use it if the power cord plug does not match your wall outlet.
- Be sure to insert the plugs firmly into the jacks. Loose connection may cause hum and noise.
- Leave a little slack in the connecting cord to allow for inadvertent shock or vibration.

* VOLTAGE SELECTOR : Not equipped with the model for the United States and Australia.



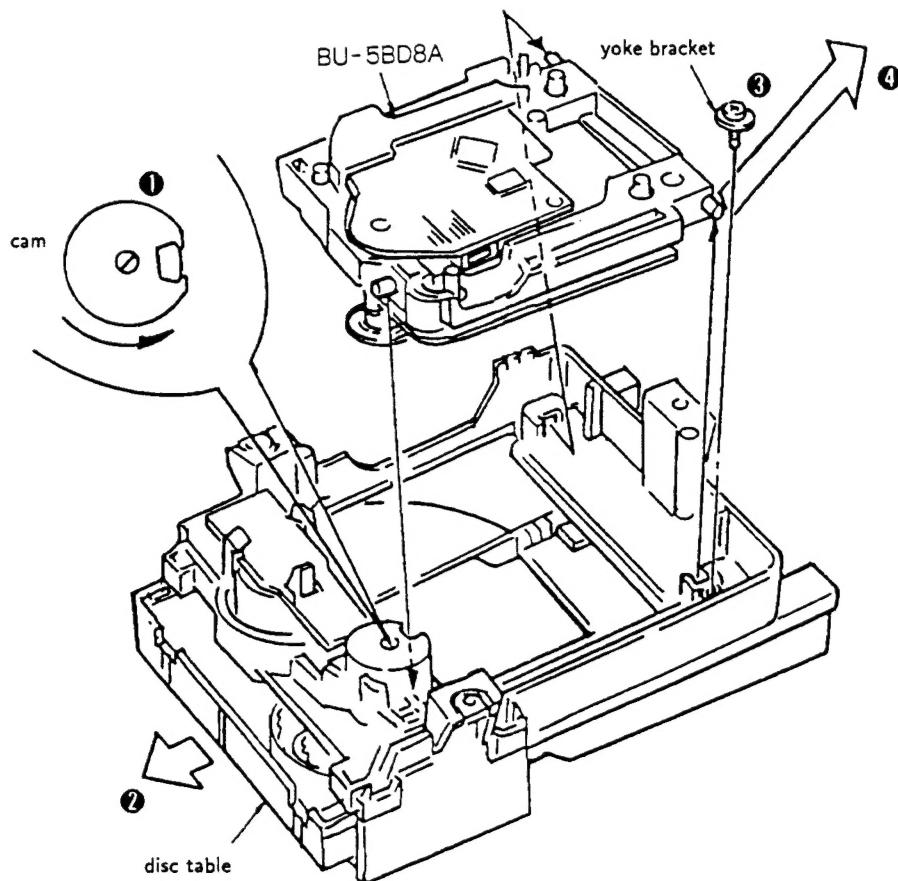
SECTION 2 DISASSEMBLY

CDP-M33

Note:

Follow the disassembly procedure in the numerical order given.

- ① Turn the cam to the direction of arrow (Counter clock wise) by minus screw driver.
- ② Take off the disc table.
- ③ Remove the yoke bracket.
- ④ Remove the MD (BU-5BD8A) to the direction of arrow.

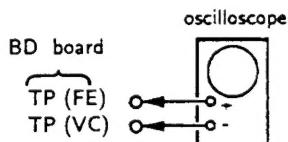


SECTION 3

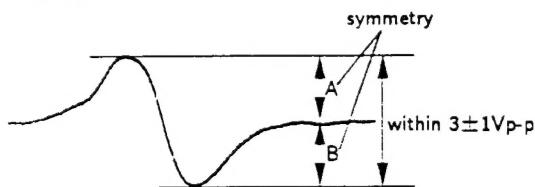
ELECTRICAL BLOCK CHECKING

Note :

1. CD Block basically constructed to operate with-out adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use the oscilloscope with more than $10M\Omega$ im-pedance.
4. Clean an object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

S Curve Check**Procedure :**

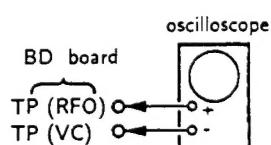
1. Connect oscilloscope to test point TP (FE) on BD board.
2. Connect between test point TP (FEI) and TP (VC) by lead wire.
3. Turned Power switch on and actuate the focus serch. (actuate the focus serch when disc table is moving in and out.)
4. Check the oscilloscope waveform (S curve) is symmetrical between A and B. And confirm peak to peak level within $3 \pm 1V_{p-p}$.

S curve waveform

5. After check, remove the lead wire connected in step 2.

Note :

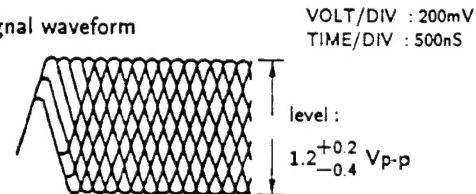
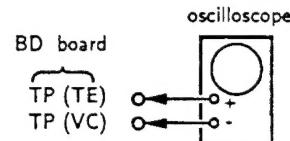
- Try to mesure several times to make sure that the ratio of A : B or B : A is more than 10 : 7.
- Take sweep time as long as possible and light up the brightness to obtain best waveform.

RF Level Check**Procedure :**

1. Connect oscilloscope to test point TP (RFO) on BD board.
2. Turn Power switch on.
3. Put disc (YEDS-18) in and playback.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

Note :

Clear RF signal waveform means that the shape "◇" can be clearly distinguished at the center of the waveform.

RF signal waveform**E-F Balance Check****Procedure :**

1. Connect test point TP (ADJ) to ground and TP (TEI) to TP (VC) with lead wire.
2. Connect oscilloscope to test point TP (TE) on BD board.
3. Turn Power switch on.
4. Put disc (YEDS-18) in and playback.
5. Confirm that the osiloscope waveform is sym-metrical on the top and bottom in relation to 0V, and check this level.

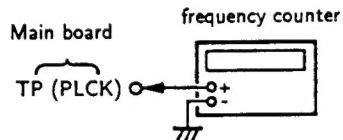
Traverse oscilloscope

6. Remove the lead wire connected in step 1.

RF PLL Free-run Frequency Check

Procedure :

1. Connect frequency counter to test point (PLCK) with lead wire.

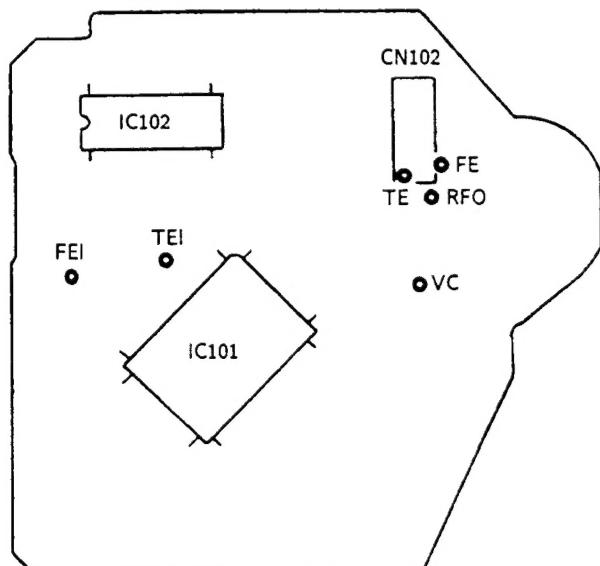


2. Turn Power switch on.
3. Confirm that reading on frequency counter is 4.3218 MHz.

Adjustment Location :

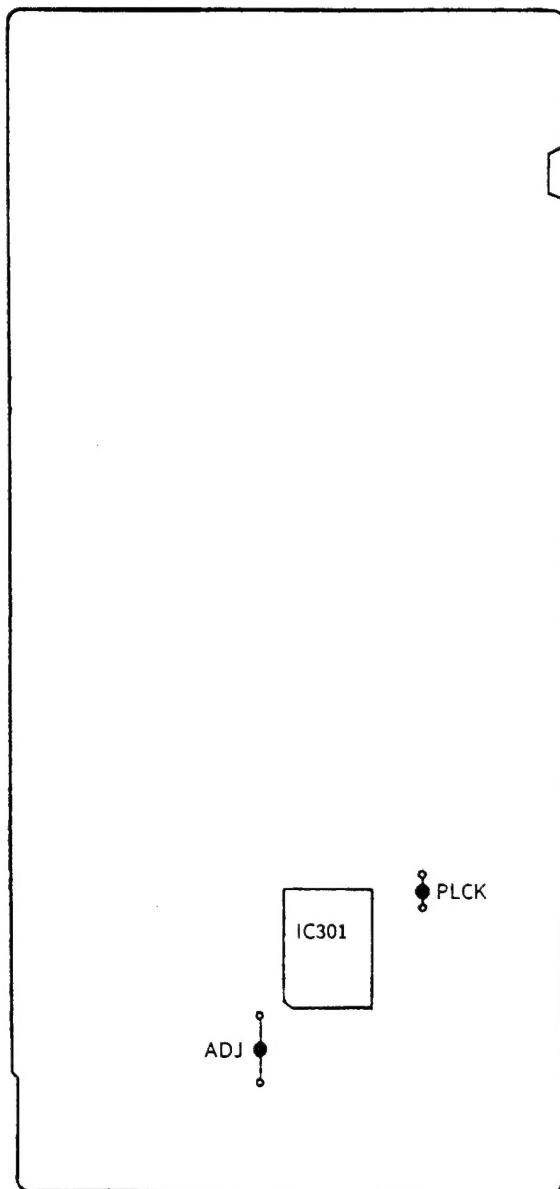
【BD BOARD】

- Solder side -



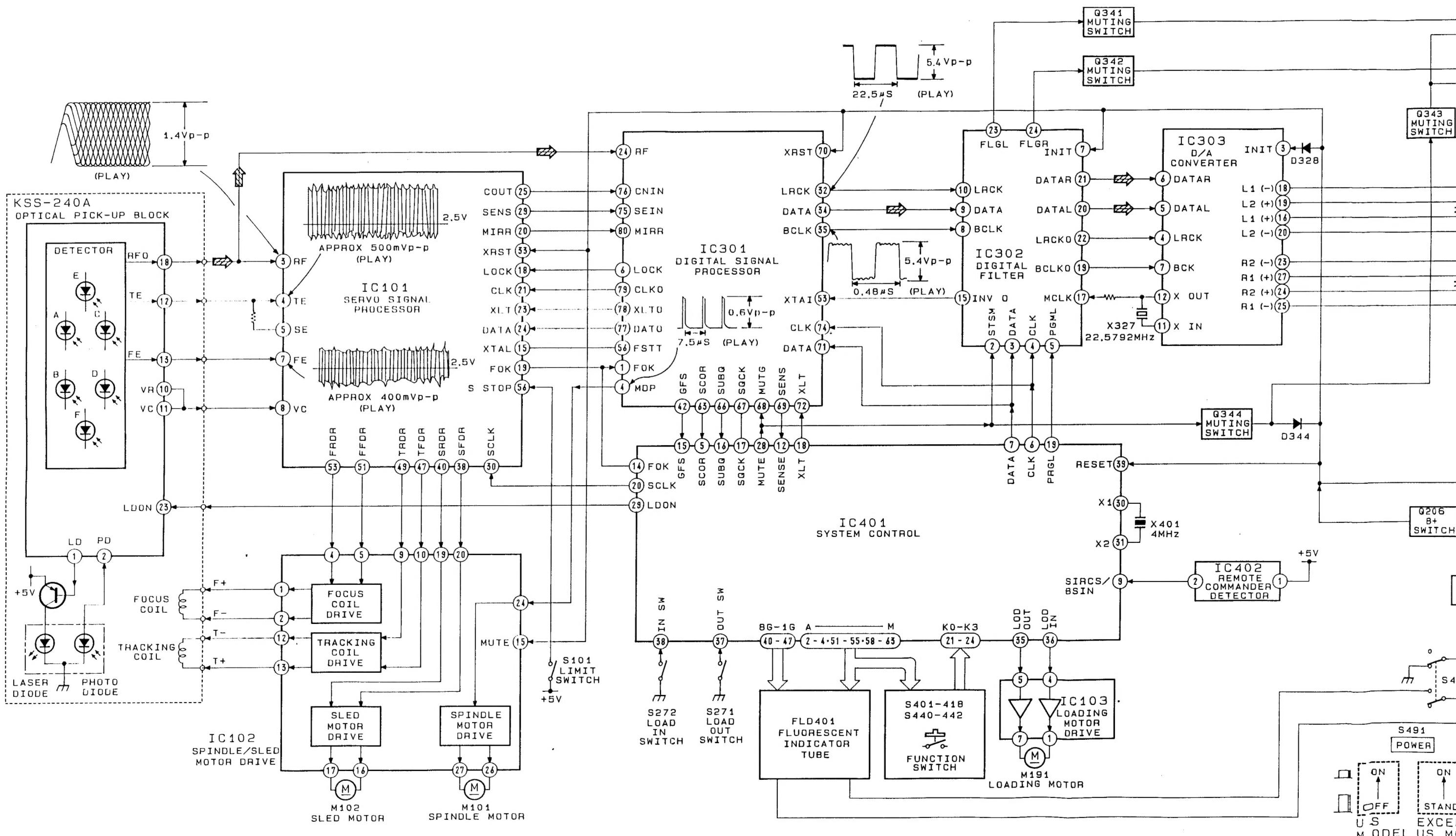
【MAIN BOARD】

- Component side -

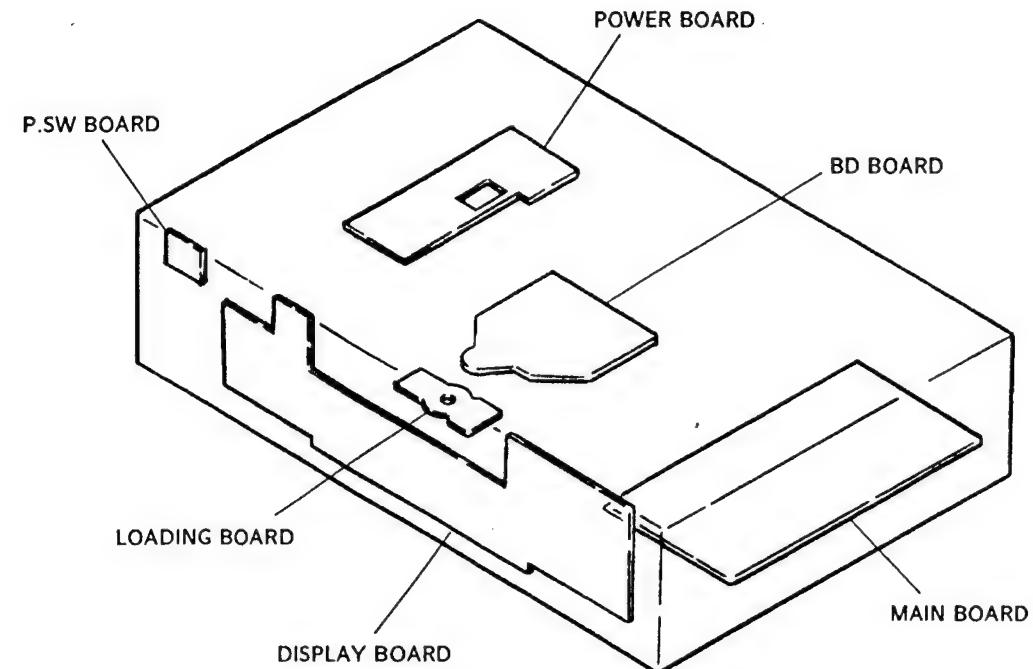
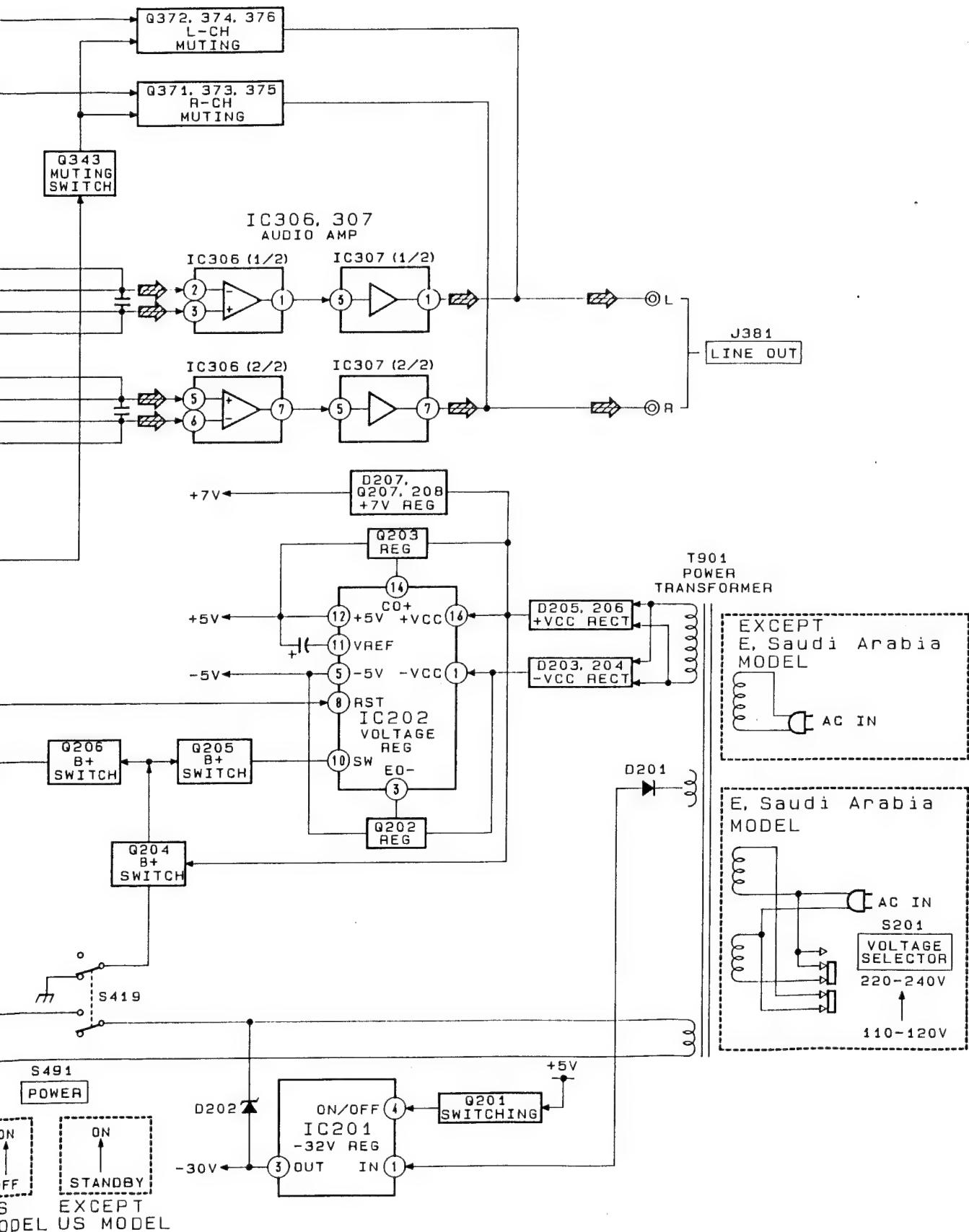


SECTION 4 DIAGRAMS

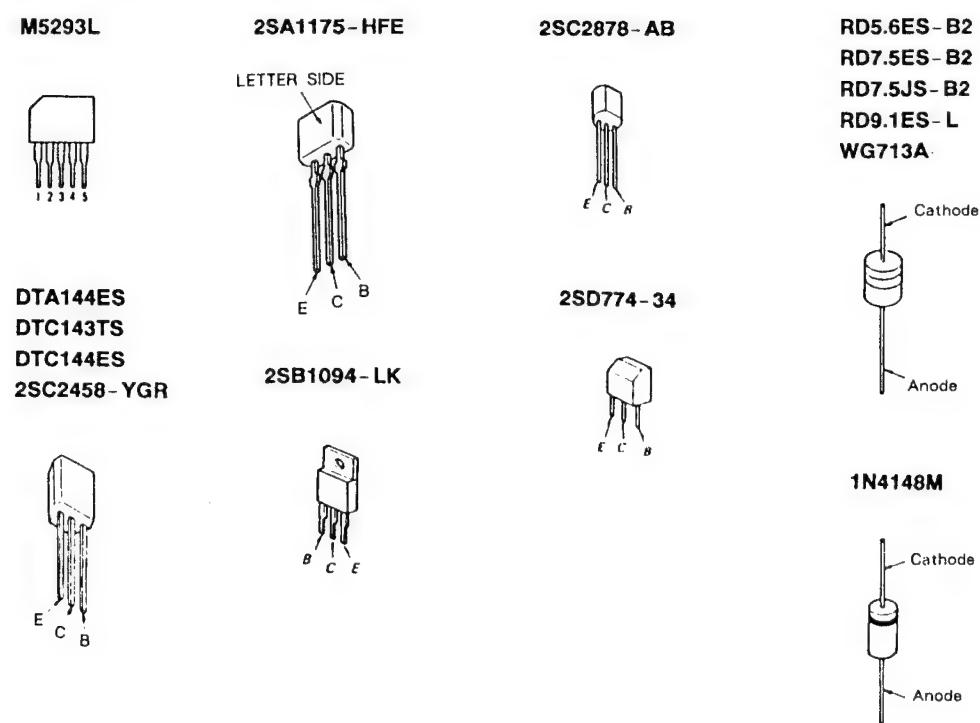
4-1. BLOCK DIAGRAM



4-2. CIRCUIT BOARDS LOCATION



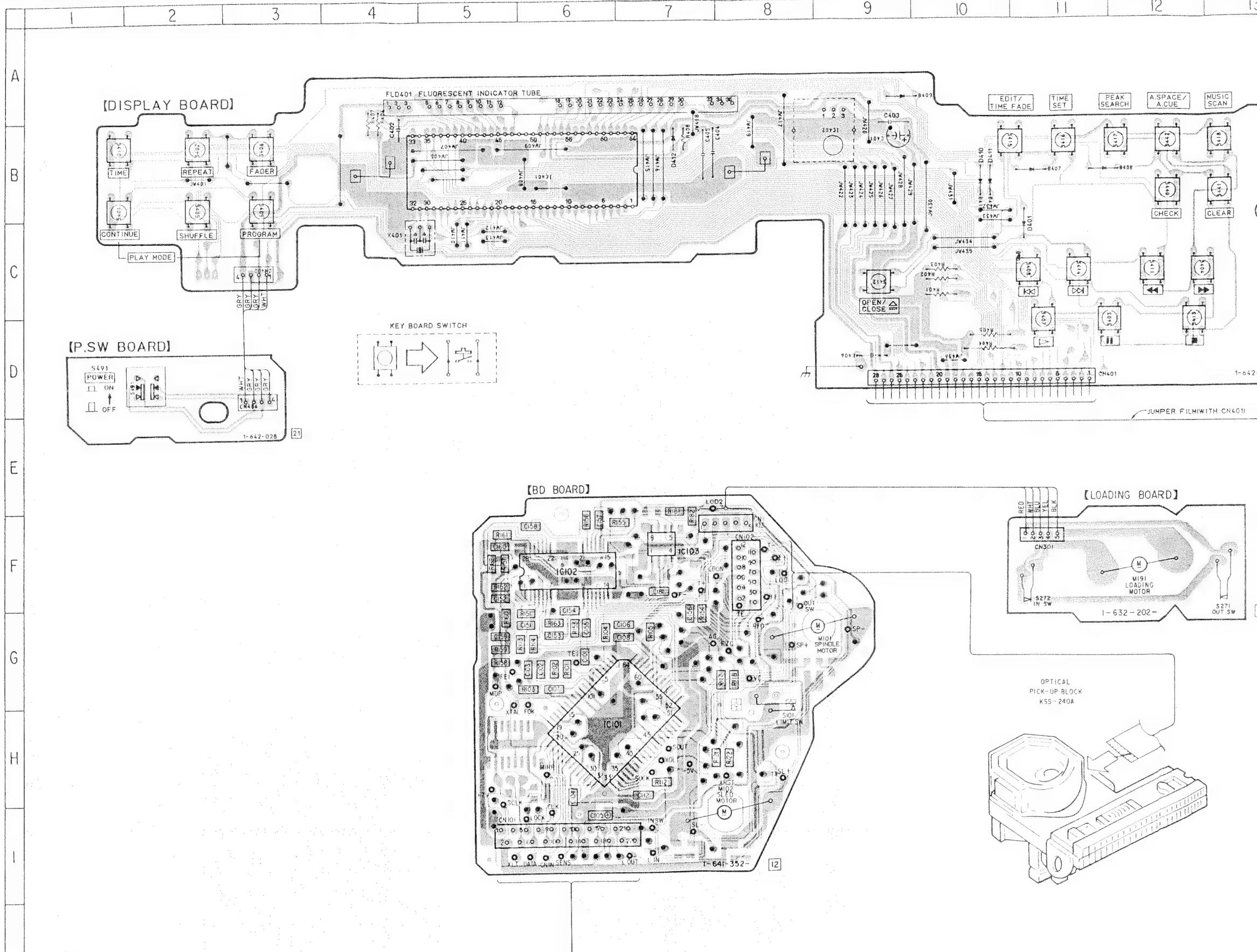
4-3. SEMICONDUCTOR LEAD LAYOUTS

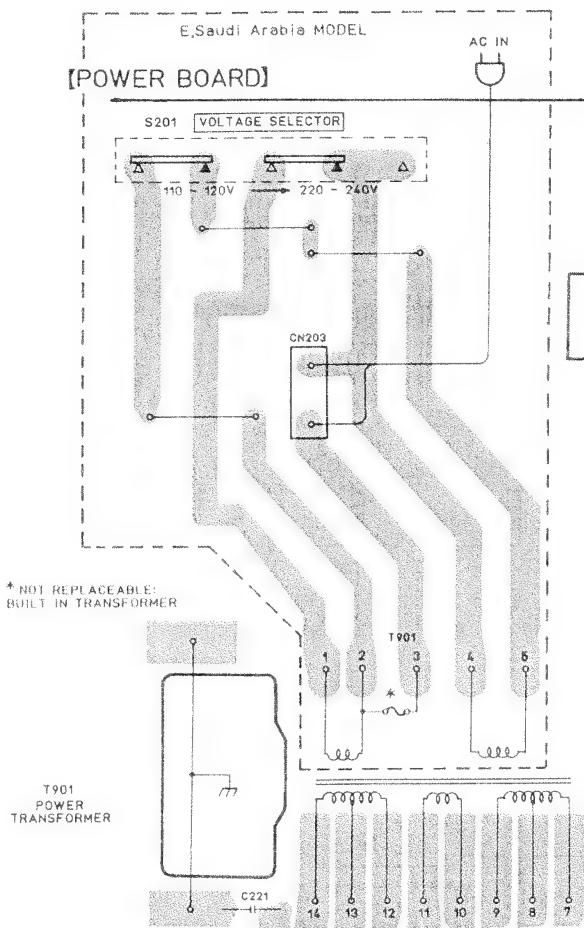
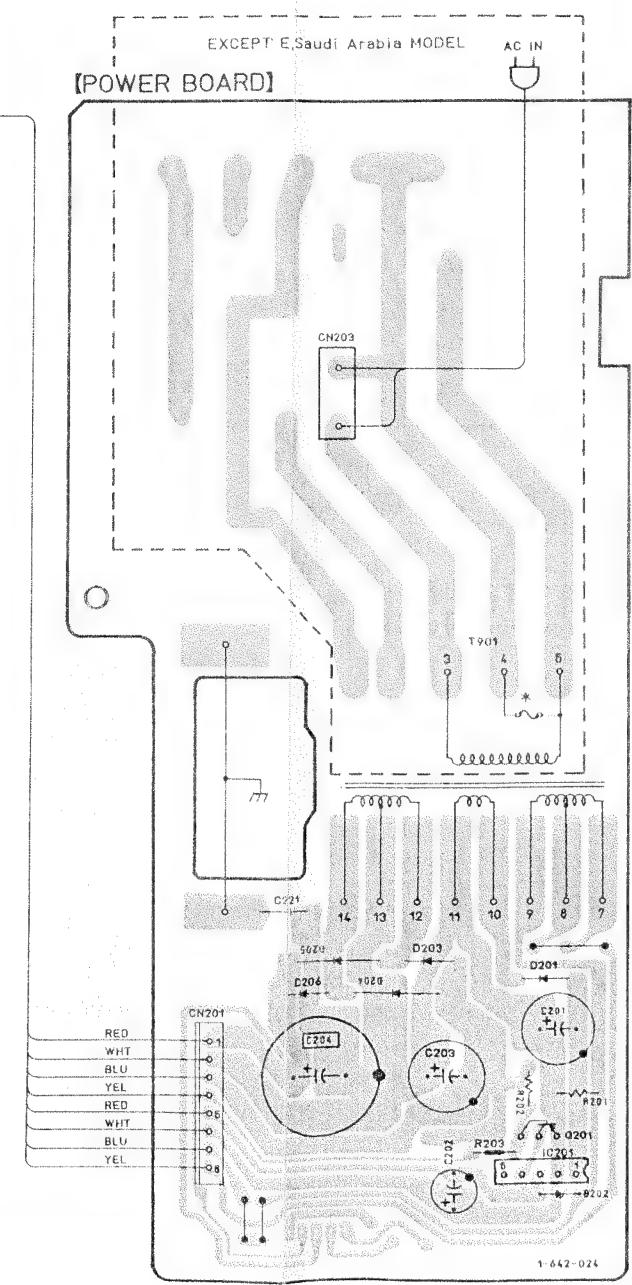
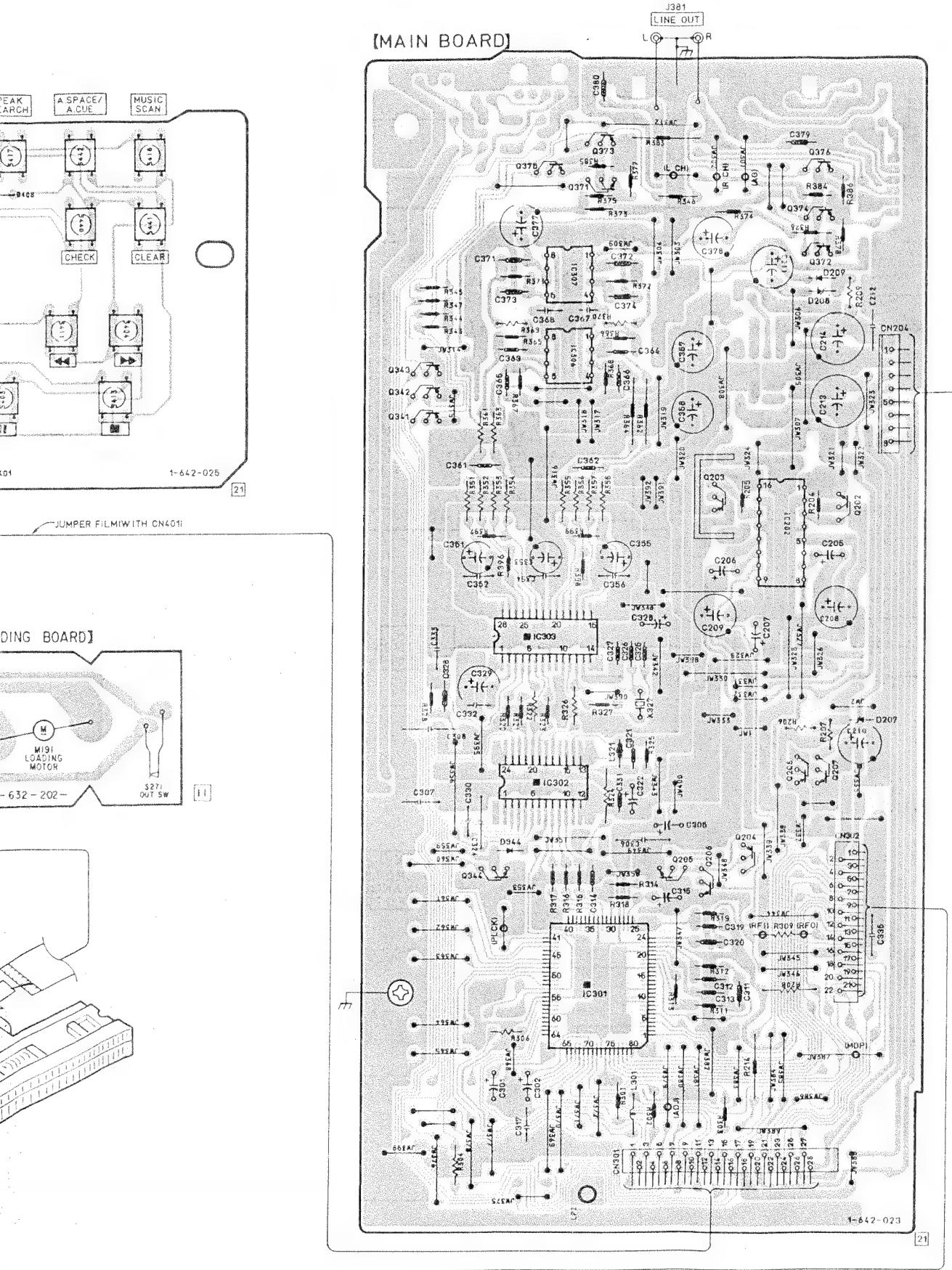


4-4. PRINTED WIRING BOARDS

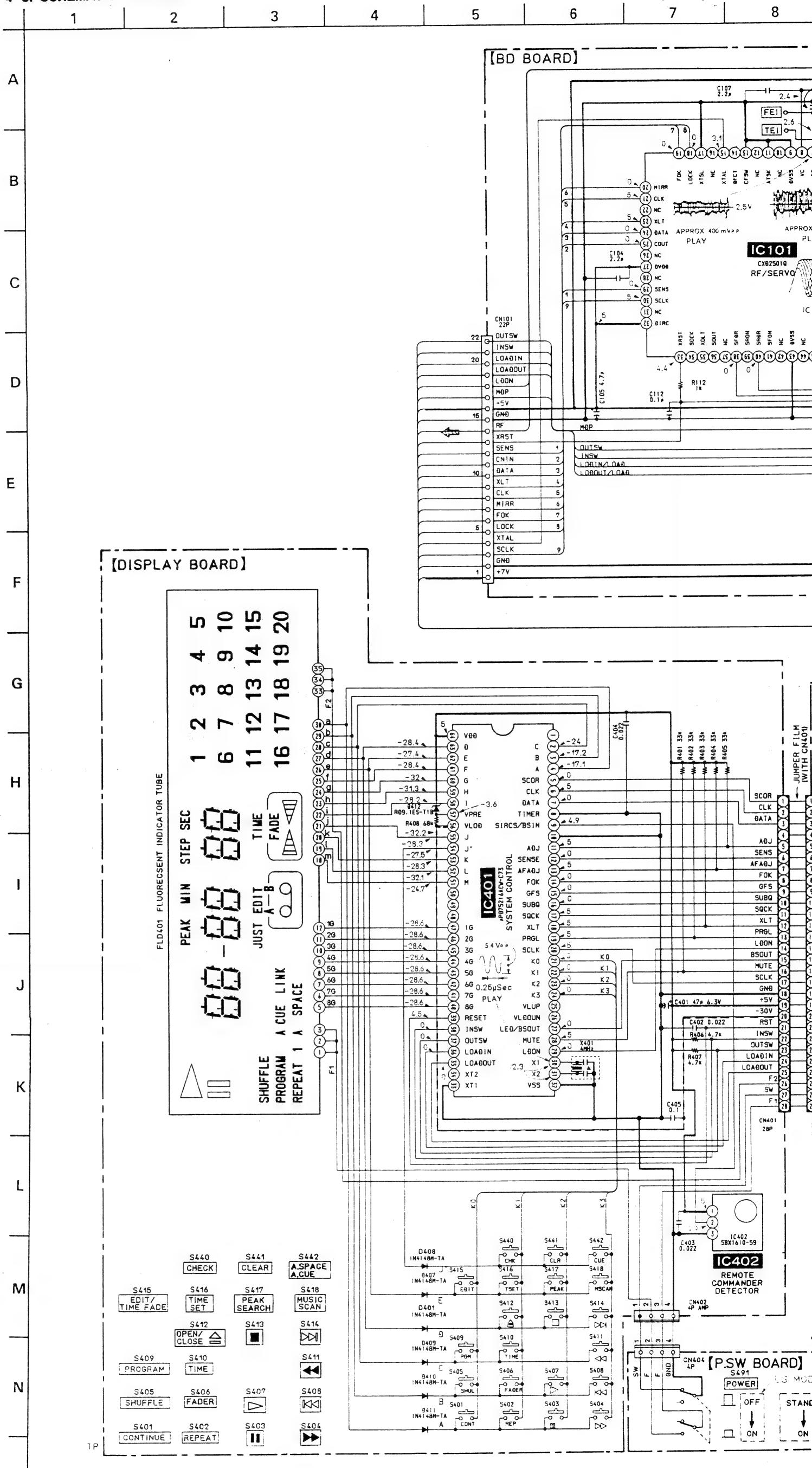
Semiconductor Location

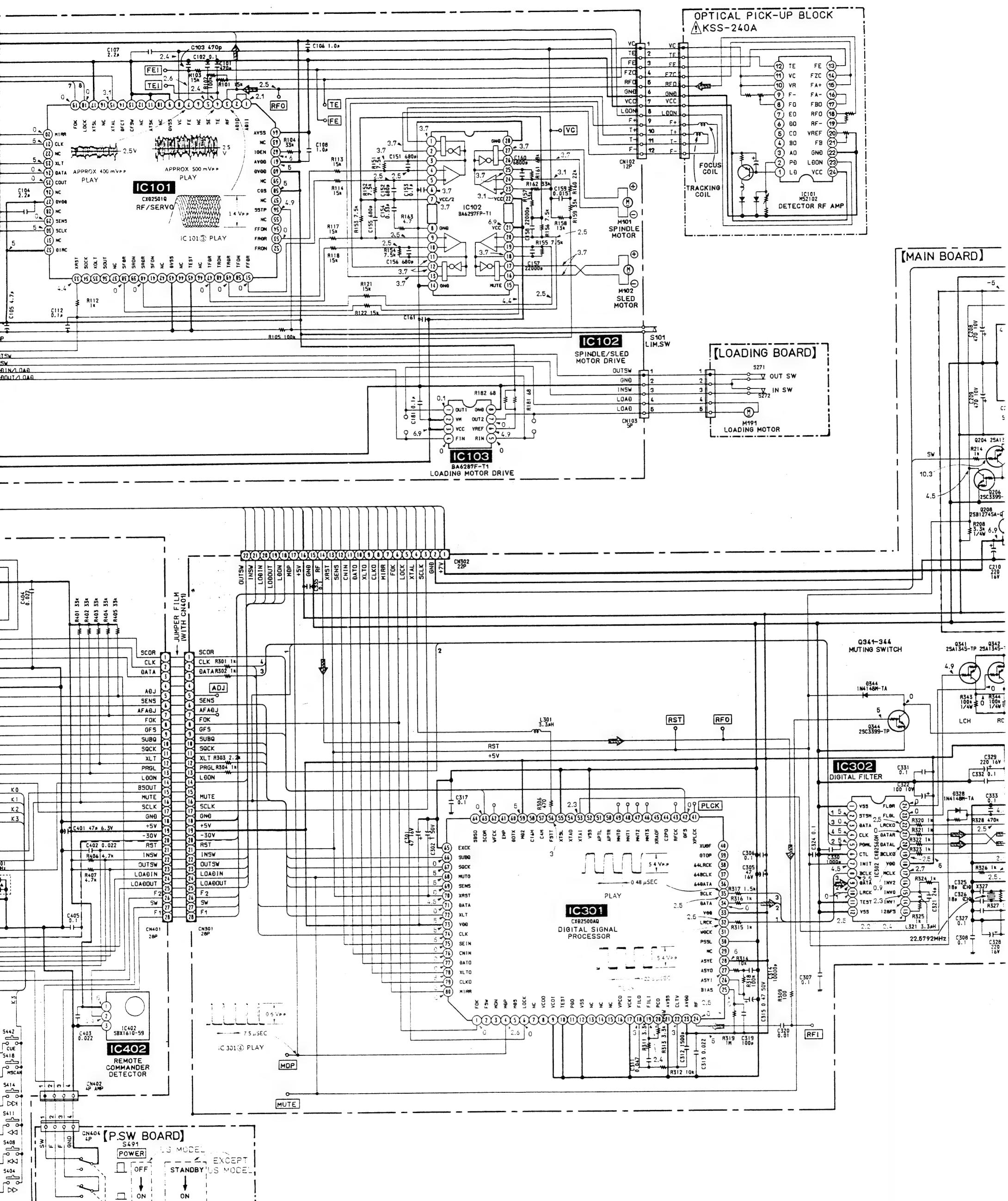
Ref. No.	Location
D201	H-22
D202	J-22
D203	H-21
D204	H-21
D205	H-21
D206	H-20
D207	F-18
D208	C-18
D209	C-18
D328	F-15
D344	G-15
D401	C-11
D407	B-11
D408	B-11
D409	A-9
D410	B-10
D411	B-10
D412	B-7
IC101	H-6
IC102	F-6
IC103	F-7
IC201	I-22
IC202	E-17
IC301	II-16
IC302	G-16
IC303	E-16
IC306	C-16
IC307	C-16
IC401	B-6
IC402	B-9
Q201	I-22
Q202	D-18
Q203	D-17
Q204	G-17
Q205	G-17
Q206	G-17
Q207	F-18
Q208	F-18
Q341	D-15
Q342	D-15
Q343	C-15
Q344	G-15
Q371	B-16
Q372	C-18
Q373	B-16
Q374	B-18
Q375	B-16
Q376	B-18



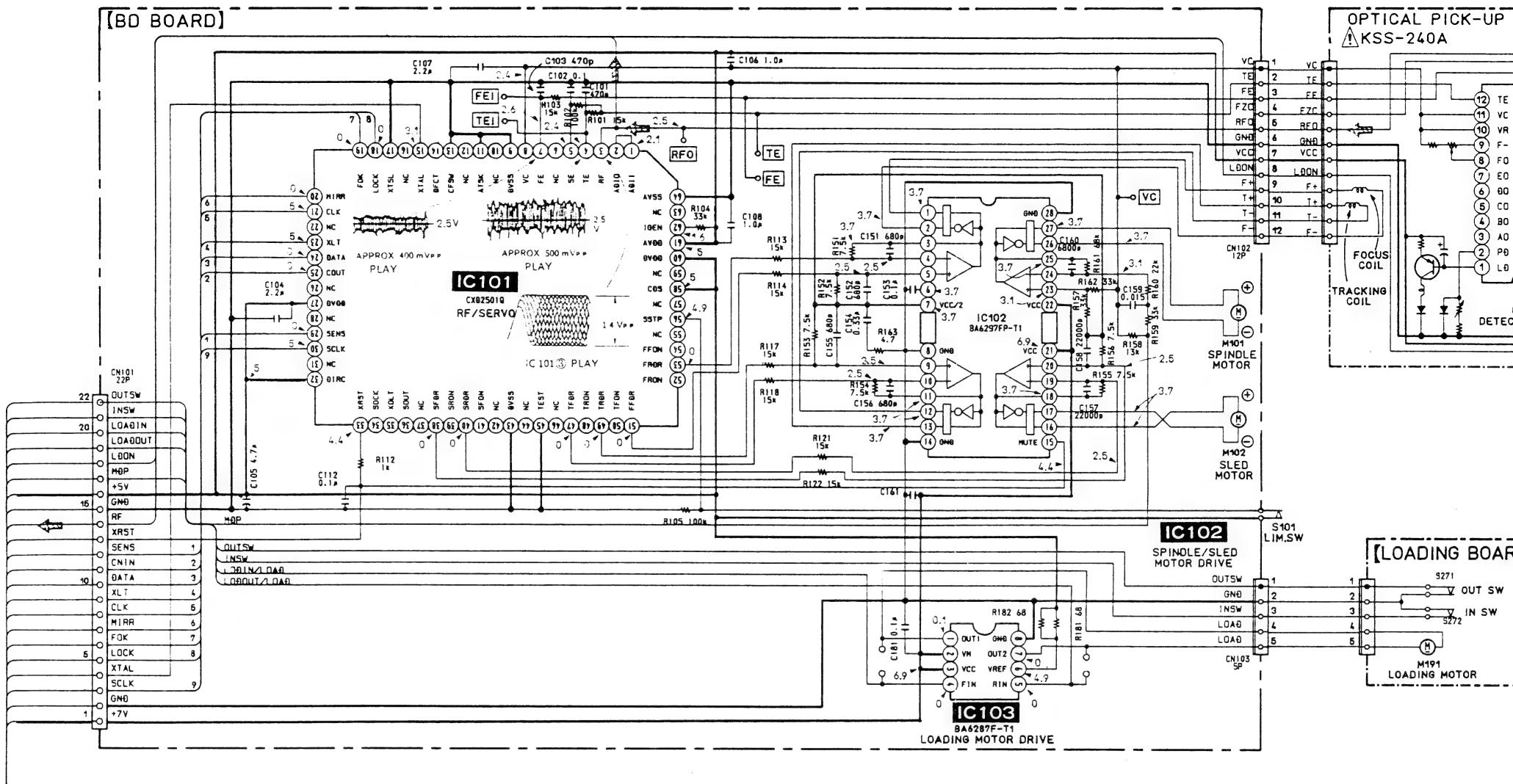


4-5. SCHEMATIC DIAGRAM





[BD BOARD]



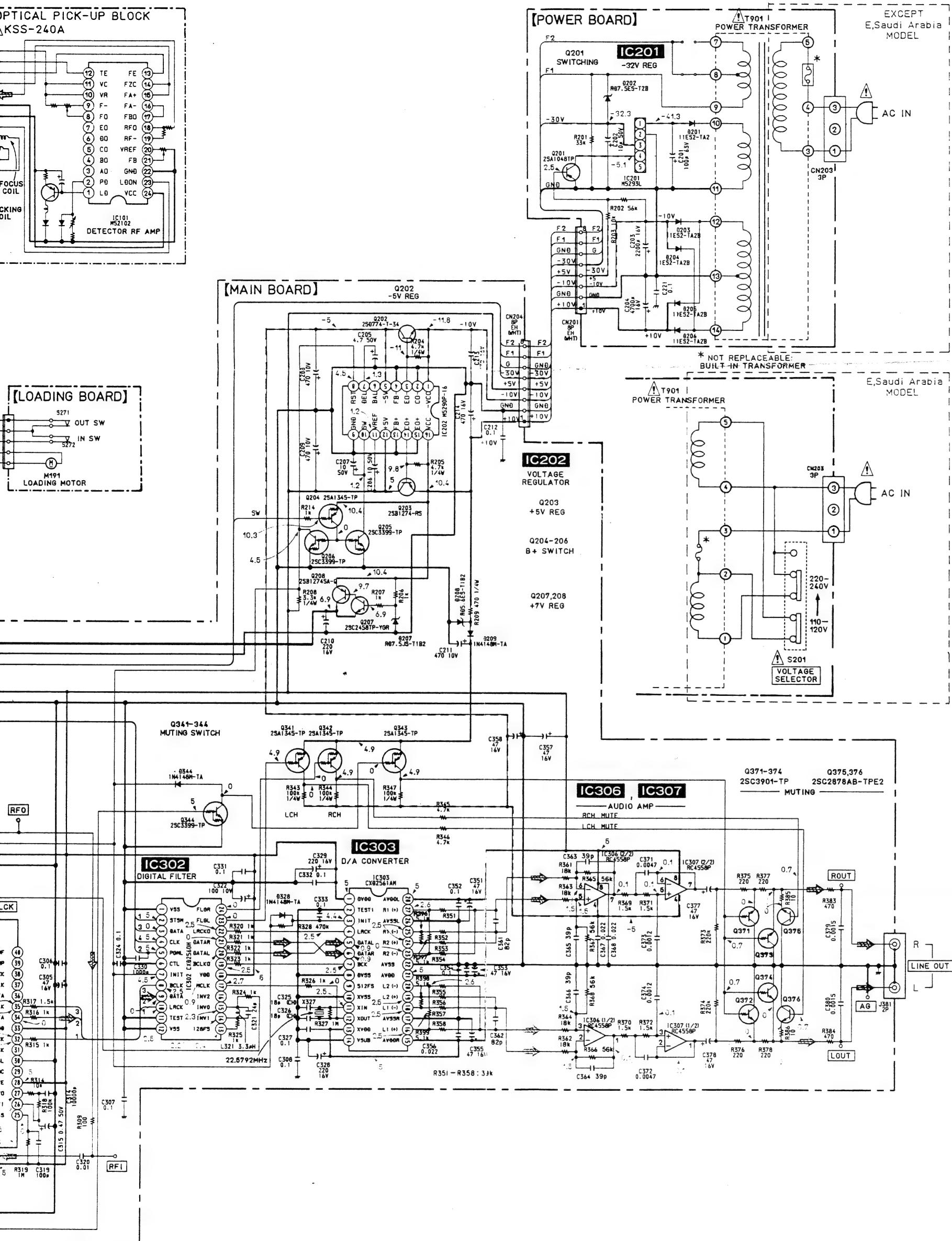
IC401

#P07214ACM-C73

SYSTEM CONTROL

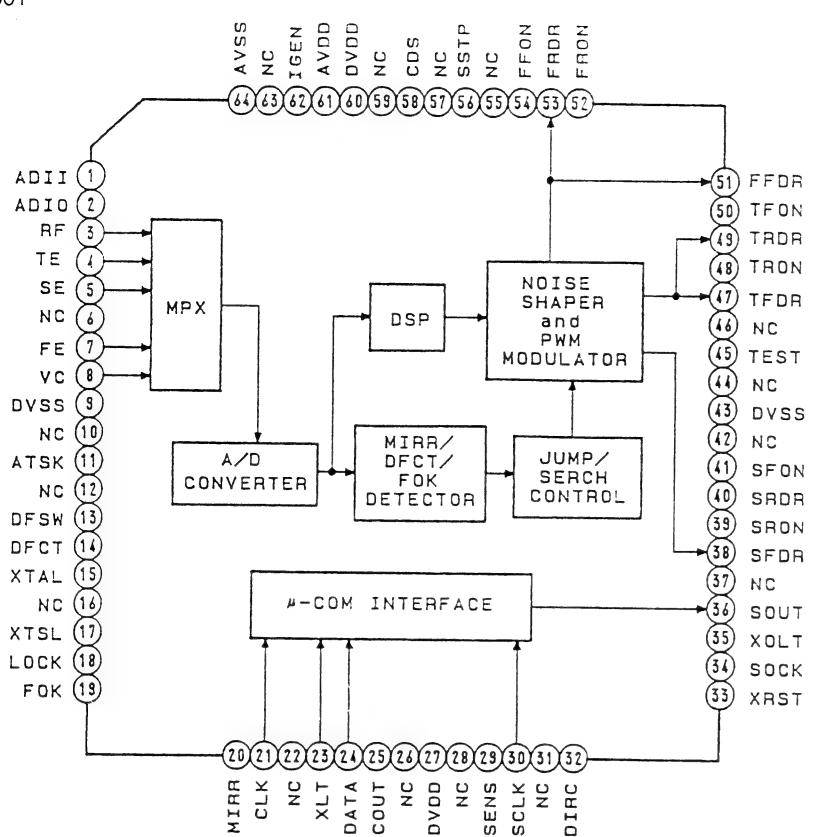
IC401

SYSTEM

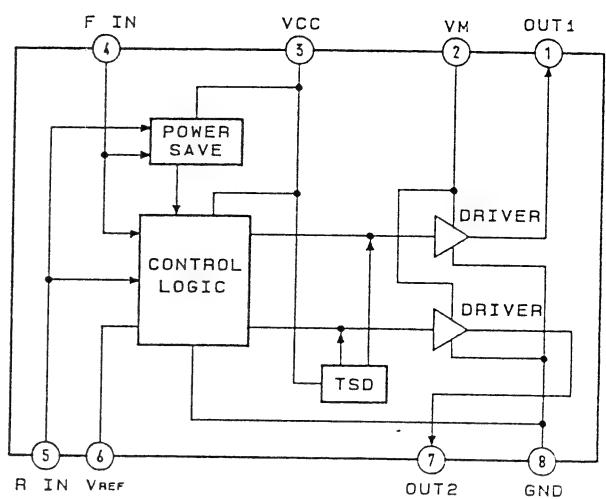


4-6. IC BLOCK DIAGRAMS

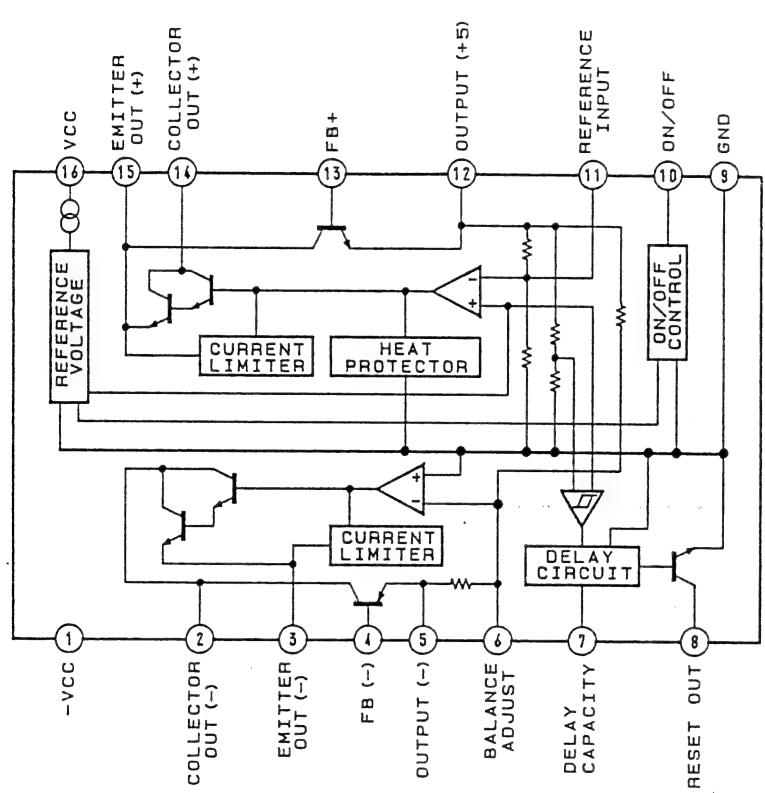
• IC101 CXD2501



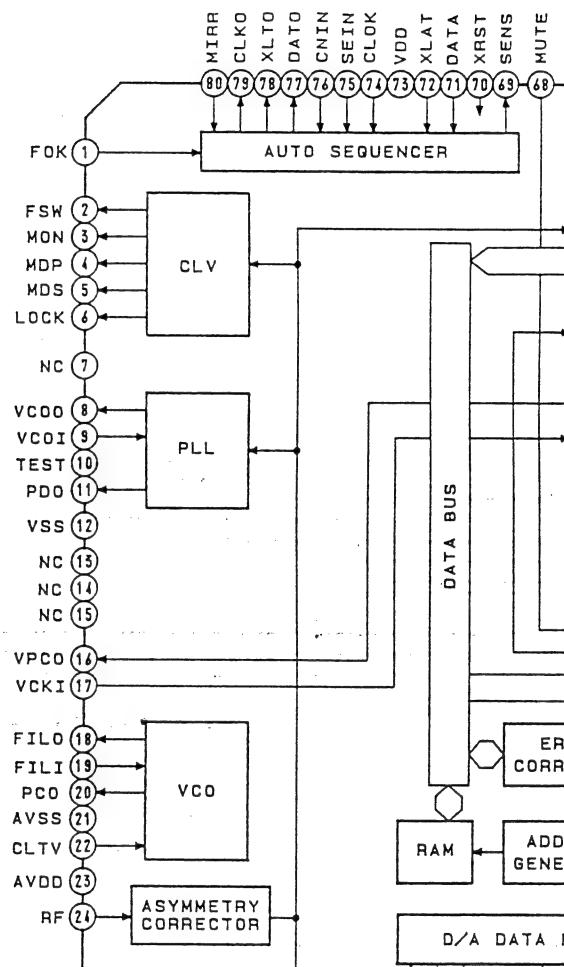
• IC103 BA6287F



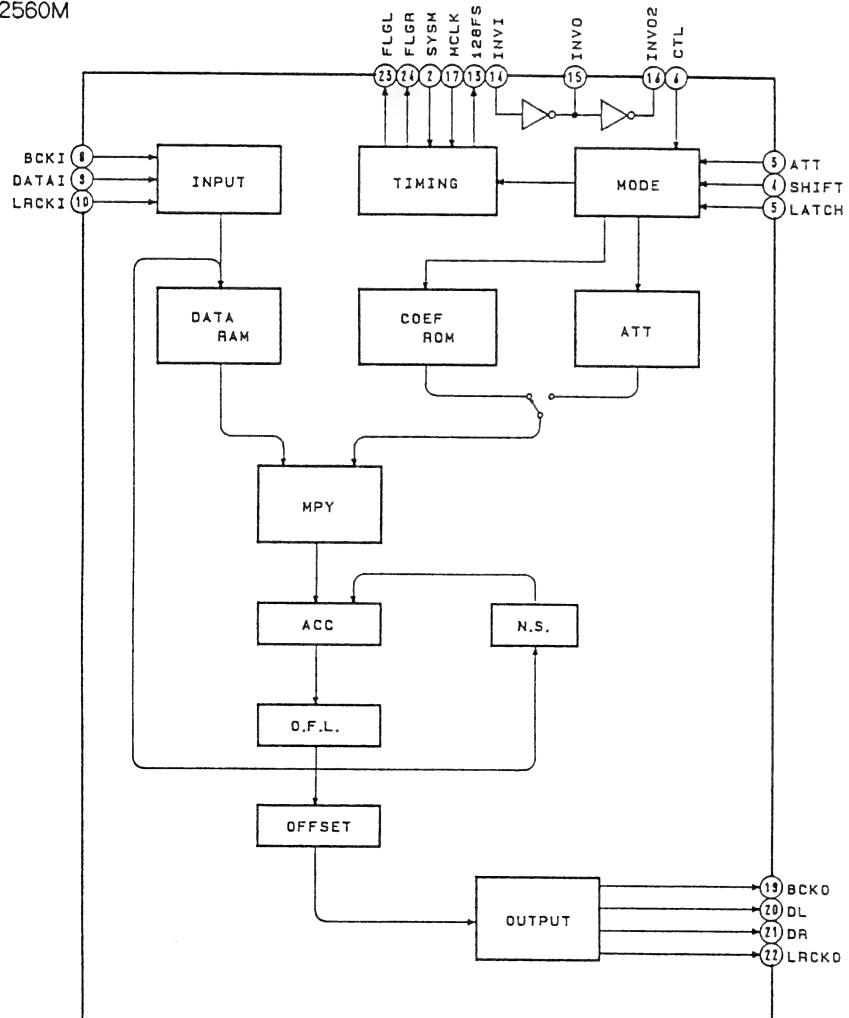
• IC202 M5290P-16



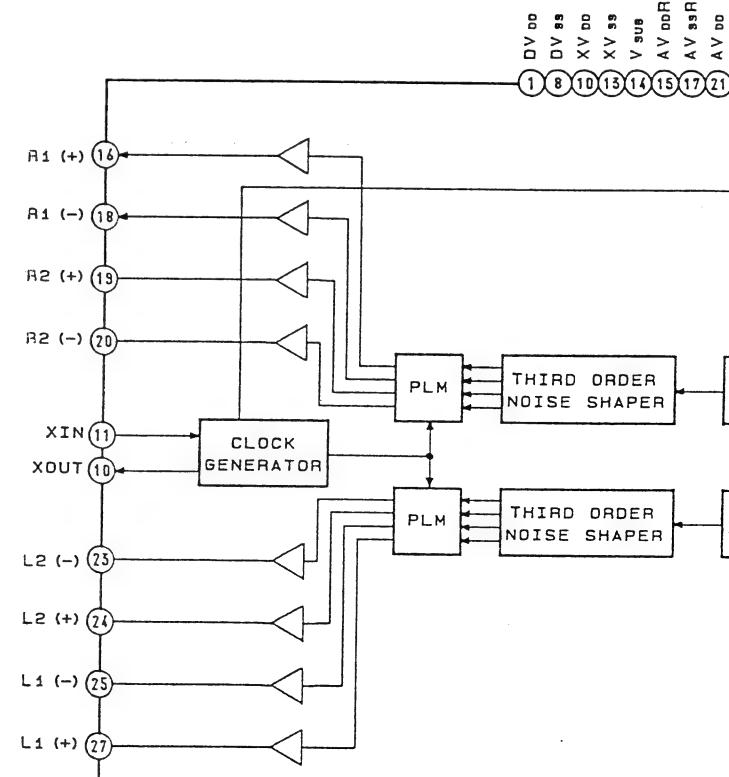
• IC301 CXD2500AQ

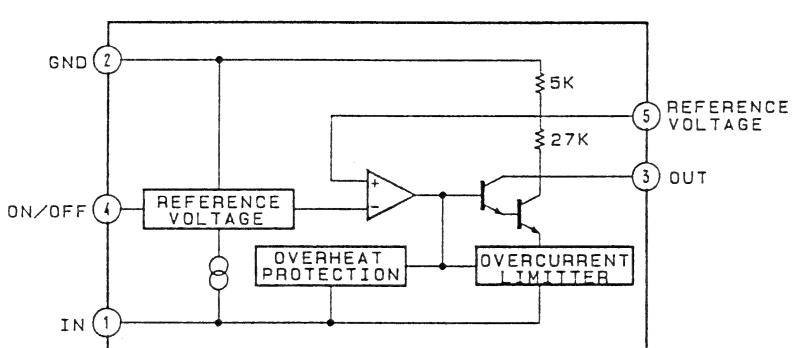
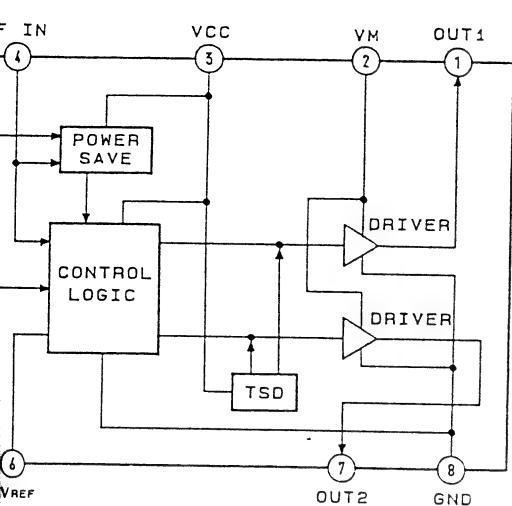


• IC302 CXD2560M

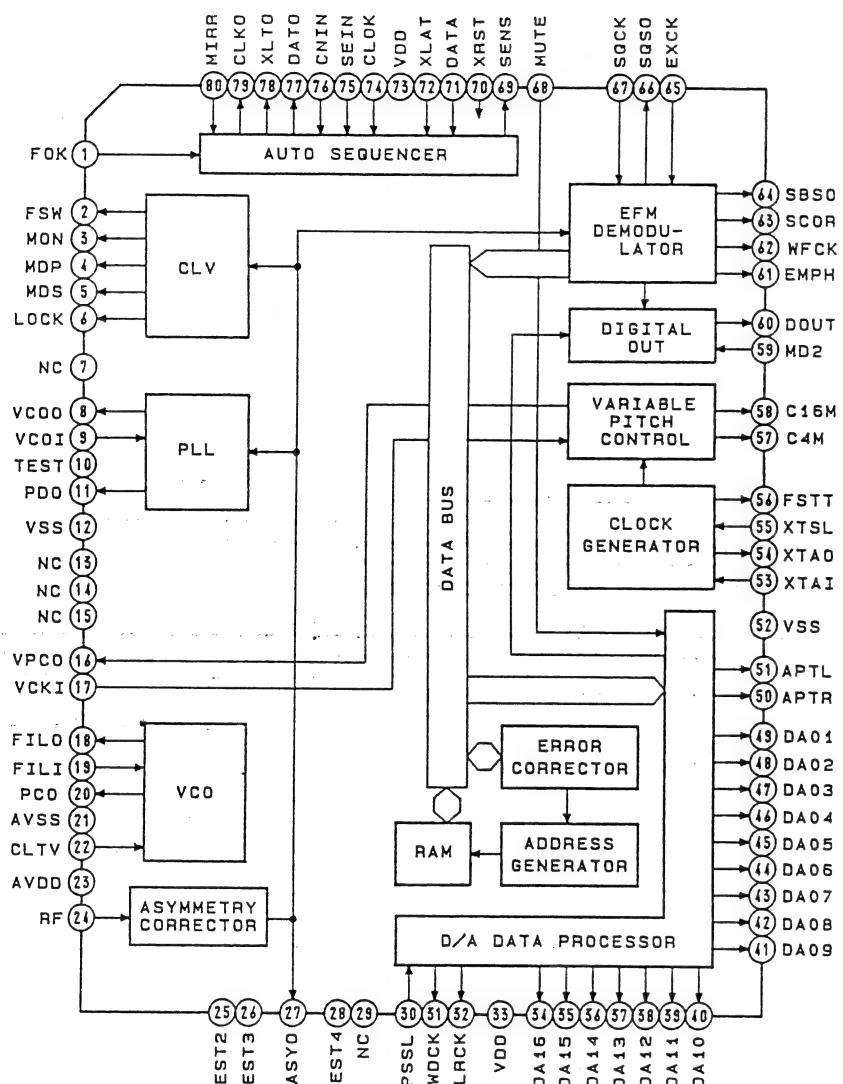


• IC303 CXD2561AM

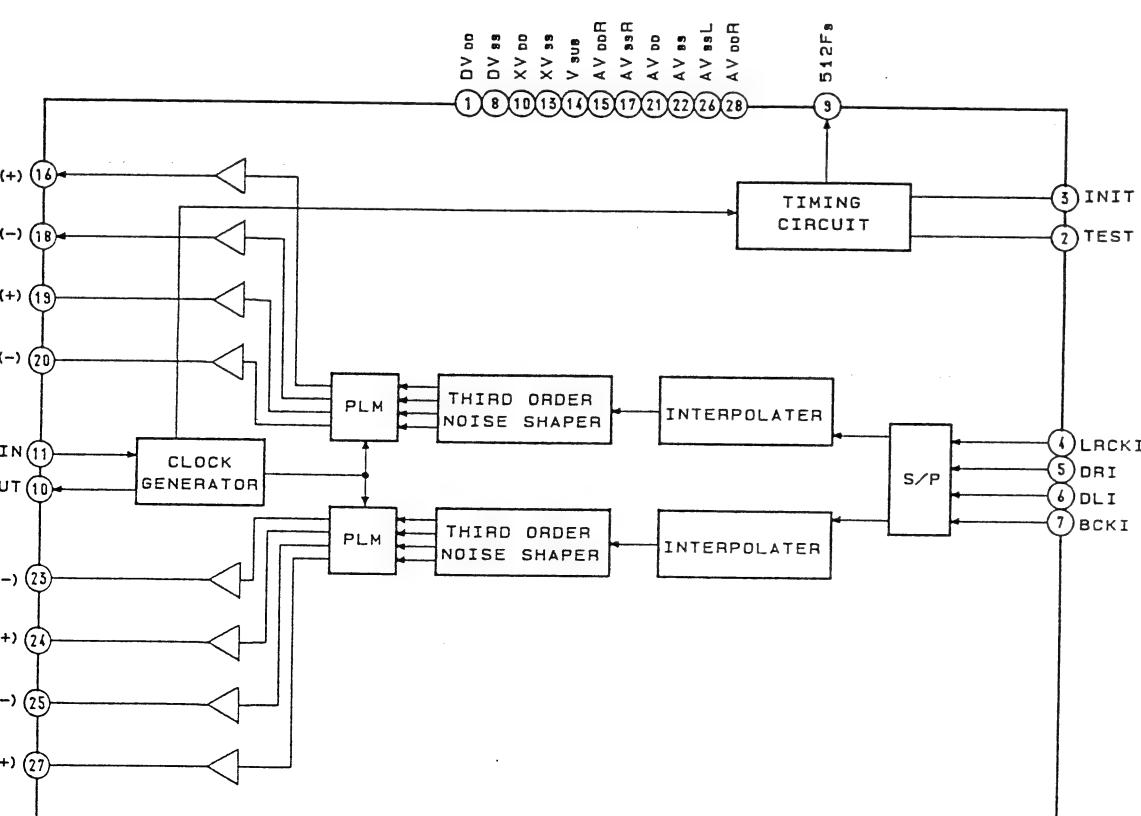




• IC301 CXD2500AQ



• IC303 CXD2561AM



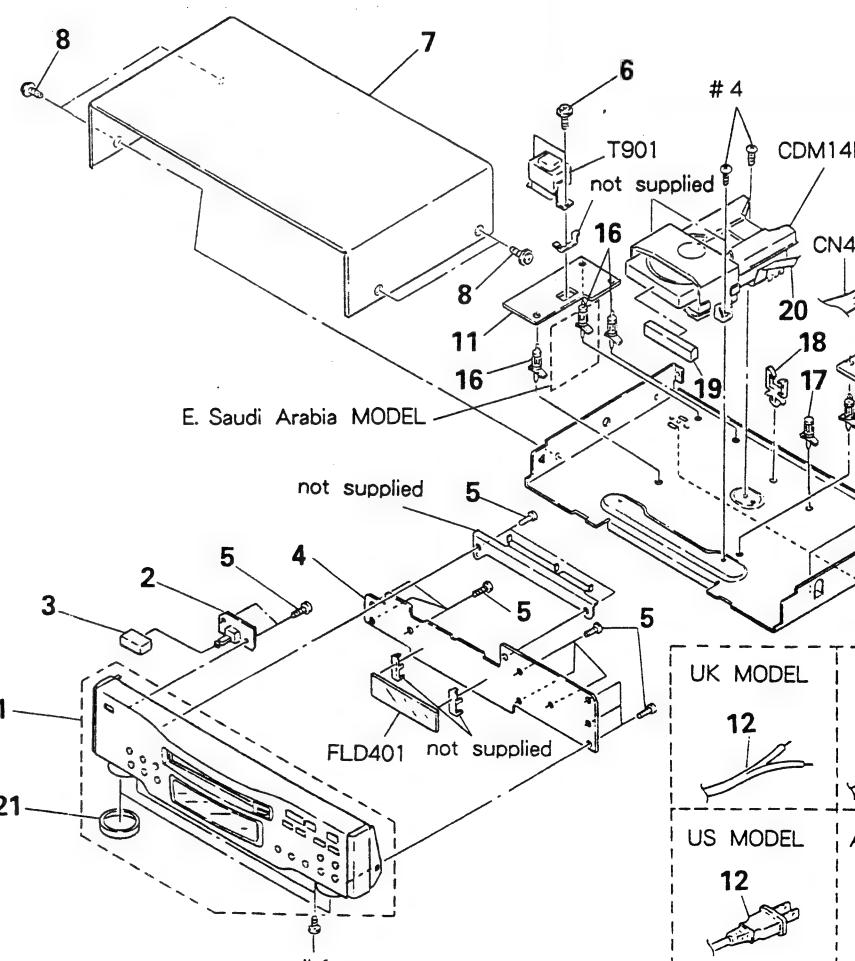
NOTE:

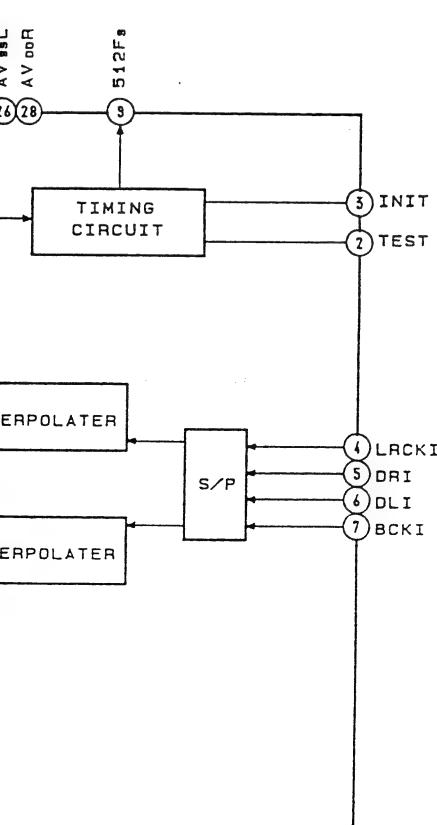
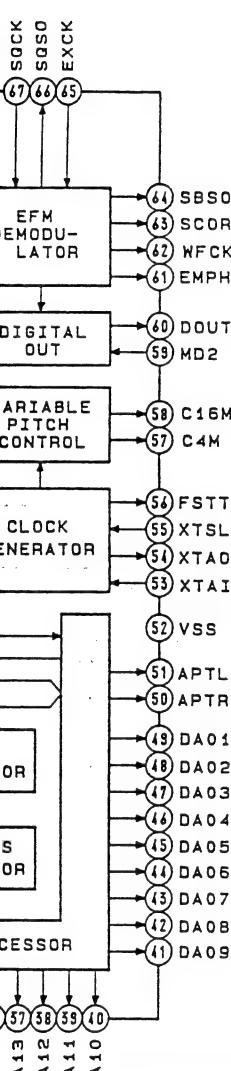
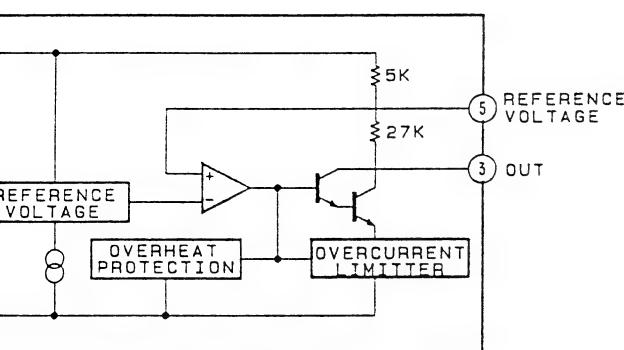
- - XX, - X mean standardized parts, so they may have some differences from the original one.
- Color Indication of Appearance Parts Example : KNOB, BALANCE (WHITE)...(RED) ↑ Parts color Cabinet's color ↑ Cabinet's color

SECTION 5 EXPLODED VIEWS

- Items marked "*" are not standard since they are seldom required for routine service. Some delay should be anticipated when ordering items.
- The mechanical parts with no reference number in the exploded view are not supplied.
- Hardware (# mark) list is given at the last of this parts list.

5-1. CABINET SECTION



**NOTE:**

- XX, - X mean standardized parts, so they may have some differences from the original one.
- Color Indication of Appearance Parts Example:
KNOB, BALANCE (WHITE)...(RED) ↑ ↑
Parts color Cabinet's color

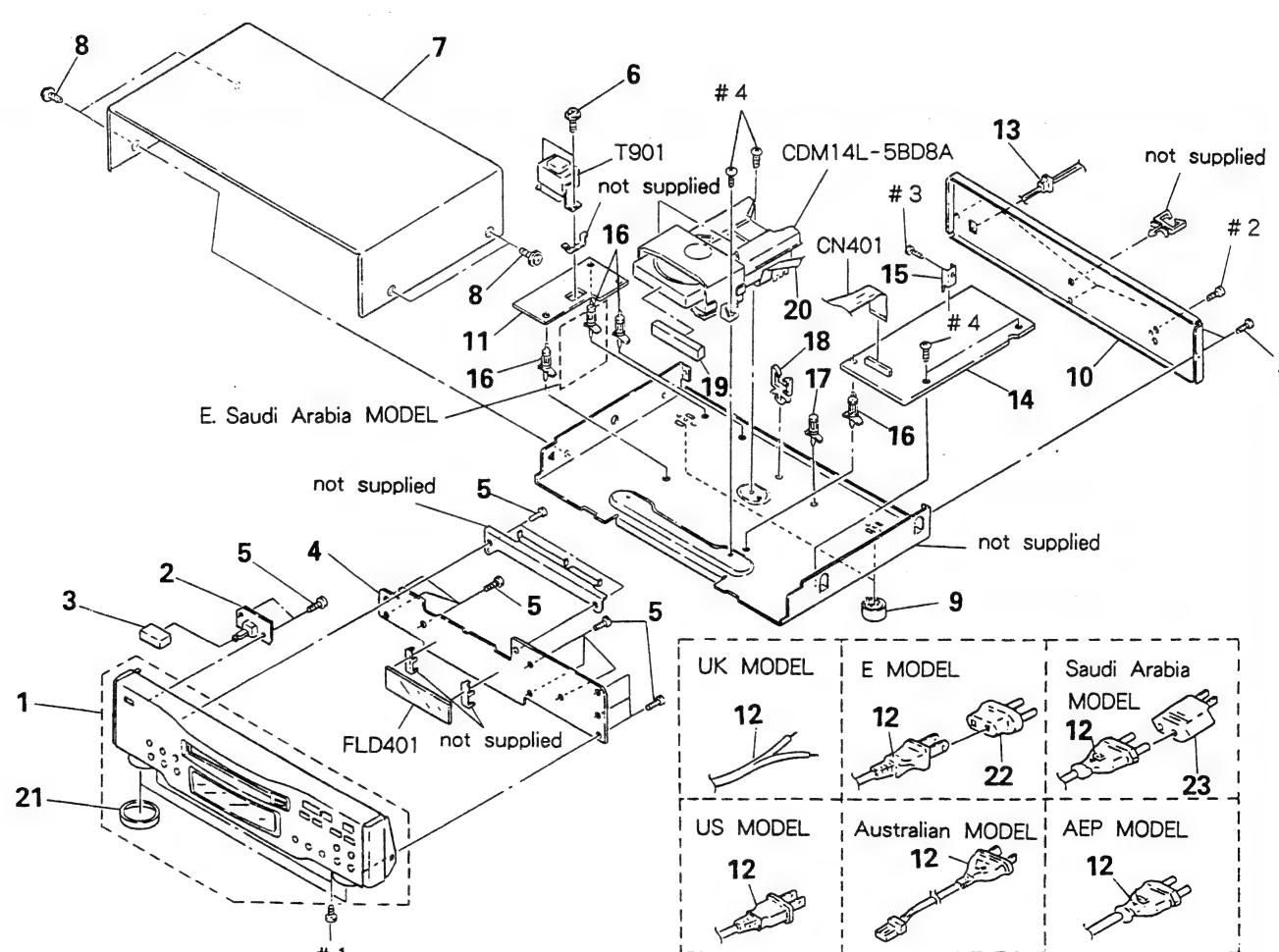
SECTION 5 EXPLODED VIEWS

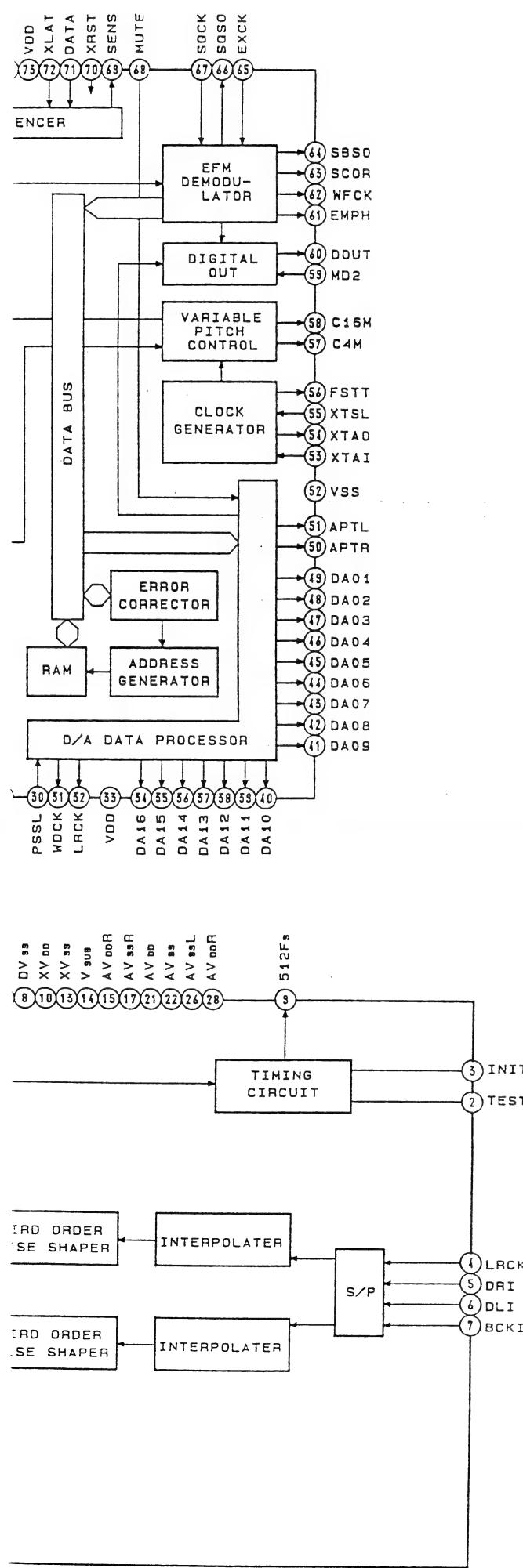
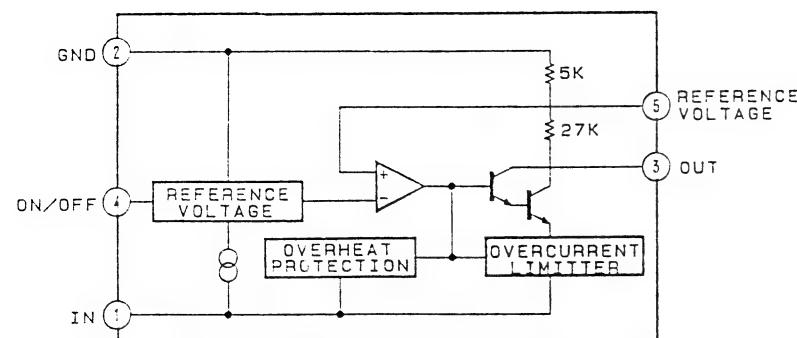
- Items marked "f" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list is given in the last of this parts list.

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

AUS : Australian
IT : Italian

5-1. CABINET SECTION





SECTION 5

EXPLODED VIEWS

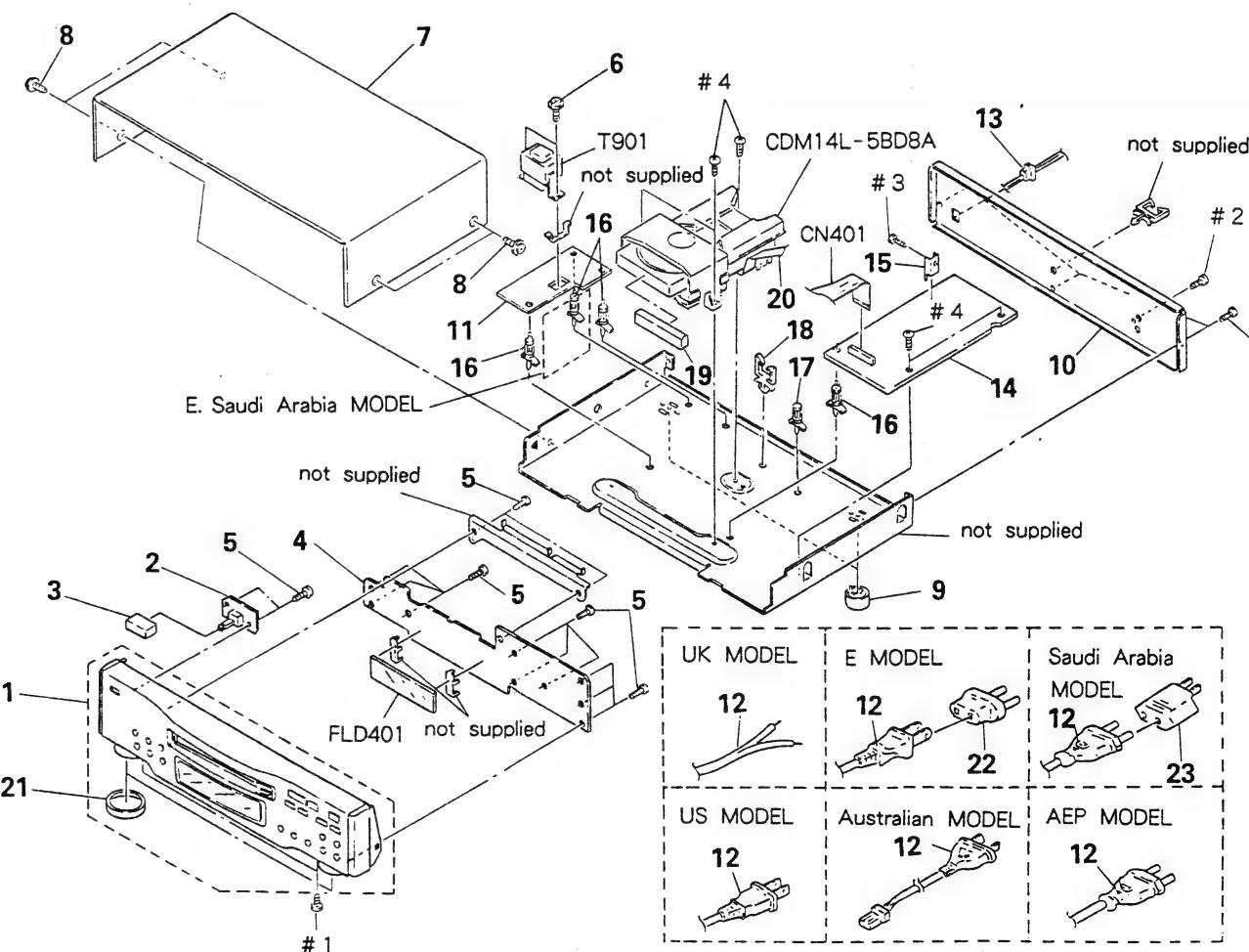
NOTE:

- - XX, - X mean standardized parts, so they may have some differences from the original one.
 - Color Indication of Appearance Parts Example :
KNOB, BALANCE (WHITE)...(RED)
 ↑ ↑
 Parts color Cabinet's color
 - Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
 - The mechanical parts with no reference number in the exploded views are not supplied.
 - Hardware (# mark) list is given in the last of this parts list.

The components identified by or dotted line with mark critical for safety.
Replace only with part number specified.

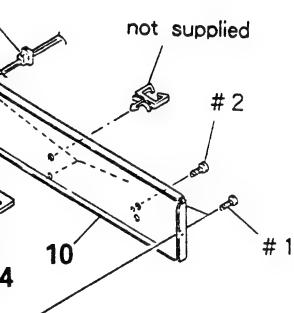
AUS : Australian

5-1. CABINET SECTION

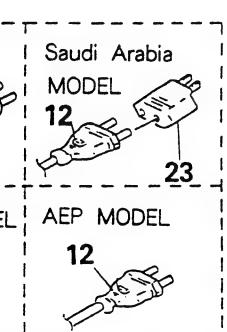


The components identified by mark Δ or dotted line with mark Δ are critical for safety.
Replace only with part number specified.

AUS : Australian
IT : Italian



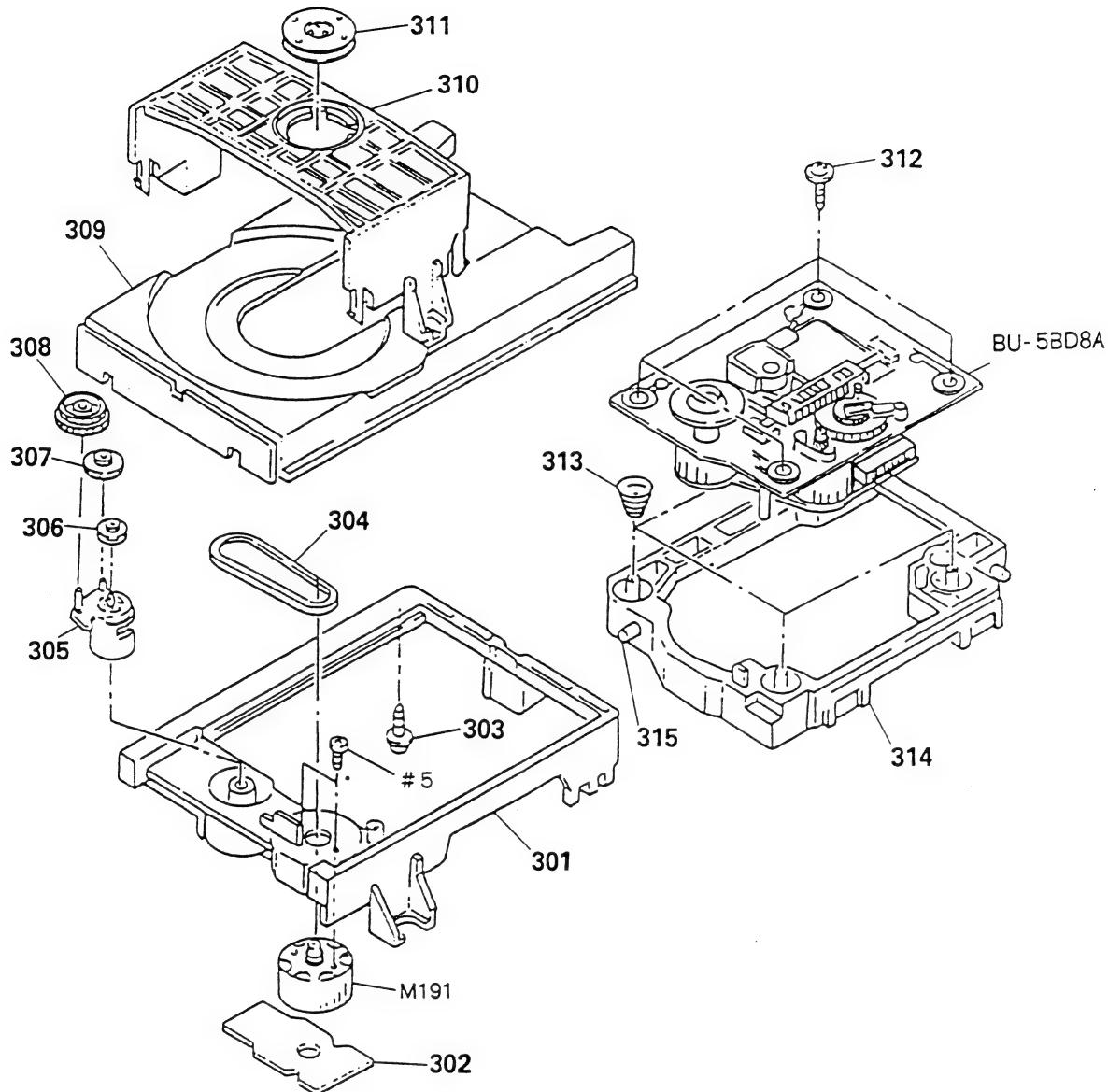
supplied



Ref. No.	Part No.	Description	Remark
1	X-4942-484-1	PANEL (ALS) ASSY, FRONT (GRAY) (MADE IN FRANCE) (AEP, UK)	
1	X-4942-484-2	PANEL ASSY, FRONT (GRAY) (MADE IN JAPAN) (AEP)	
1	X-4942-485-2	PANEL ASSY, FRONT (BLACK) (MADE IN JAPAN) (IT)	
1	X-4942-486-2	PANEL ASSY, FRONT (BLACK) (MADE IN JAPAN) (US)	
1	X-4942-487-2	PANEL ASSY, FRONT (MADE IN JAPAN) (E, AUS, Saudi Arabia)	
* 2	1-642-028-21	P. SW BOARD	
3	4-927-341-01	BUTTON (POWER)	
* 4	A-4649-117-A	DISP BOARD, COMPLETE	
5	4-928-635-01	SCREW, +BV (2.6X8) TAPPING	
6	4-886-821-11	SCREW, S TIGHT, +PTTWH 3X6	
7	4-919-376-31	CASE (BLACK) (US, IT)	
7	4-919-376-81	CASE (GRAY) (AEP, UK, AUS, E, Saudi Arabia)	
8	3-363-099-01	SCREW (CASE +3X8 TP2) (MADE IN FRANCE) (AEP, UK)	
8	3-704-366-01	SCREW (CASE) (M3X8) (MADE IN JAPAN) (US, AEP, E, IT, AUS, Saudi Arabia)	
9	4-933-601-01	FOOT	
10	4-941-552-21	PANEL, BACK (MADE IN FRANCE) (AEP, UK)	
* 10	4-949-227-01	PANEL, BACK (MADE IN JAPAN) (AEP, IT)	
* 10	4-949-227-12	PANEL, BACK (MADE IN JAPAN) (E, Saudi Arabia)	
* 10	4-949-227-21	PANEL, BACK (MADE IN JAPAN) (AUS)	
* 10	4-949-227-33	PANEL, BACK (MADE IN JAPAN) (US)	
* 11	1-642-024-21	POWER BOARD	

Ref. No.	Part No.	Description	Remark
Δ 12	1-574-127-31	CORD, POWER (MADE IN FRANCE) (AEP)	
Δ 12	1-574-358-31	CORD, POWER (WITH CONNECTOR) (AUS)	
Δ 12	1-574-390-31	CORD, POWER (UK)	
Δ 12	1-575-651-21	CORD, POWER (MADE IN JAPAN) (AEP, IT, Saudi Arabia)	
Δ 12	1-590-836-11	CORD, POWER (US)	
Δ 12	1-575-653-21	CORD, POWER (E)	
* 13	3-703-571-12	BUSHING (S) (4516), CORD (E)	
* 13	3-703-244-00	BUSHING (2104), CORD (US, IT, AUS)	
13	4-946-787-01	BUSHING, CORD (MADE IN FRANCE) (AEP, UK)	
* 14	A-4649-118-A	MAIN BOARD, COMPLETE	
15	4-902-345-01	HEAT SHINK	
* 16	4-924-098-31	HOLDER, PC BOARD	
* 17	3-349-025-41	HOLDER, PC BOARD	
* 18	4-314-320-00	HOLDER, WIRE	
19	4-948-441-01	PANEL, LOADING (GRAY) (UK, AEP, E, AUS, Saudi Arabia)	
19	4-948-441-11	PANEL, LOADING (BLACK) (US, IT)	
20	1-575-160-11	WIRE, FLAT TYPE (22 CORE)	
* 21	4-921-918-11	PLATE, ORNAMENTAL (US, E, Saudi Arabia, AUS)	
22	1-569-007-11	ADAPTOR, CONVERSION (E)	
23	1-569-008-11	ADAPTOR, CONVERSION (Saudi Arabia)	
Δ T901	1-449-921-11	TRANSFORMER, POWER (US)	
Δ T901	1-449-922-11	TRANSFORMER, POWER (AEP, UK, IT, AUS)	
Δ T901	1-449-923-11	TRANSFORMER, POWER (E, Saudi Arabia)	
CN401	1-535-987-11	JAMPER, FILM (WITH TERMINAL)	
FLD401	1-519-681-11	INDICATOR TUBE, FLUORESCENT	

5-2. MD SECTION (CDM14L - 5BD8A)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
301	4-933-111-01	CHASSIS (MD)		310	4-933-110-01	HOLDER (MG)	
* 302	1-632-202-11	LOADING BOARD		* 311	1-452-538-11	MAGNET	
* 303	4-917-583-21	BRACKET, YOKE		312	4-933-134-01	SCREW (+PTPWH M2.6X6)	
304	4-927-649-01	BELT		313	4-917-541-01	SPRING (B) (MADE IN FRANCE) (AEP, UK)	
305	4-933-109-01	CAM		313	4-948-503-01	SPRING (BU), COMPRESSION(MADE IN JAPAN) (US, AEP, E, IT, AUS, Saudi Arabia)	
306	4-927-651-01	PULLEY (S)		314	4-933-129-01	HOLDER (BU)	
307	4-927-628-01	GEAR (C)		315	4-933-108-01	SHAFT (CAM)	
308	4-933-107-01	GEAR (PL)		M191	A-4604-363-A	MOTOR (L) ASSY	
309	4-948-894-01	TABLE, DISK (MADE IN FRANCE)(AEP, UK)					
309	4-949-336-01	TABLE, DISK (MADE IN JAPAN) (US, AEP, E, IT, AUS, Saudi Arabia)					

DISP **LOADING** **MAIN**

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	A-4649-117-A	DISP BOARD, COMPLETE	*****	S409	1-554-303-21	SWITCH, TACTILE (PROGRAM)	
				S410	1-554-303-21	SWITCH, TACTILE (TIME)	
		< CAPACITOR >		S411	1-554-303-21	SWITCH, TACTILE (◀)	
C401	1-126-154-11	ELECT	47uF 20%	S412	1-554-303-21	SWITCH, TACTILE (▲ OPEN/CLOSE)	
C402	1-161-494-00	CERAMIC	0.022uF 25V	S413	1-554-303-21	SWITCH, TACTILE (■)	
C403	1-161-494-00	CERAMIC	0.022uF 25V	S414	1-554-303-21	SWITCH, TACTILE (▶)	
C404	1-161-494-00	CERAMIC	0.022uF 25V	S415	1-554-303-21	SWITCH, TACTILE (EDIT/TIME FADE)	
C405	1-164-159-11	CERAMIC	0.1uF 50V	S416	1-554-303-21	SWITCH, TACTILE (TIME SET)	
				S417	1-554-303-21	SWITCH, TACTILE (PEAK SEARCH)	
		< CONNECTOR >		S418	1-554-303-21	SWITCH, TACTILE (MUSIC SCAN)	
CN401	1-535-987-11	JAMPER, FILM (WITH TERMINAL)		S440	1-554-303-21	SWITCH, TACTILE (CHECK)	
				S441	1-554-303-21	SWITCH, TACTILE (CLEAR)	
		< DIODE >		S442	1-554-303-21	SWITCH, TACTILE (A SPACE/A CUE)	
						< VIBRATOR >	
D401	8-719-987-63	DIODE	1N4148M	X401	1-577-358-21	VIBRATOR, CERAMIC	
D407	8-719-987-63	DIODE	1N4148M				*****
D408	8-719-987-63	DIODE	1N4148M				
D409	8-719-987-63	DIODE	1N4148M				
D410	8-719-987-63	DIODE	1N4148M	*	1-632-202-11	LOADING BOARD	
D411	8-719-987-63	DIODE	1N4148M				*****
D412	8-719-121-24	DIODE	RD9.1ES-L				
						< CONNECTOR >	
		< FLUORESCENT INDICATOR >		*	CN301	1-564-707-11 PIN, CONNECTOR (SMALL TYPE) 5P	
FLD401	1-519-681-11	INDICATOR TUBE, FLUORESCENT					
						< SWITCH >	
		< IC >		S271	1-572-086-11	SWITCH, LEAF (OUT SW)	
IC401	8-759-061-40	IC	uPD75216ACW-C73	S272	1-572-086-11	SWITCH, LEAF (IN SW)	
IC402	8-741-100-48	IC	SBX1610-59				*****
		< RESISTOR >		*	A-4649-118-A	MAIN BOARD, COMPLETE	
R401	1-249-435-11	CARBON	33K 5% 1/4W				*****
R402	1-249-435-11	CARBON	33K 5% 1/4W				
R403	1-249-435-11	CARBON	33K 5% 1/4W			4-902-345-01 HEAT SINK	
R404	1-249-435-11	CARBON	33K 5% 1/4W			7-682-547-09 SCREW +B 3X6	
R405	1-249-435-11	CARBON	33K 5% 1/4W			< CAPACITOR >	
R406	1-249-425-11	CARBON	4.7K 5% 1/4W	C205	1-126-163-11	ELECT	4.7uF 20% 50V
R407	1-249-425-11	CARBON	4.7K 5% 1/4W	C206	1-126-059-11	ELECT	10uF 20% 50V
R408	1-249-439-11	CARBON	68K 5% 1/4W	C207	1-126-059-11	ELECT	10uF 20% 50V
				C208	1-124-997-11	ELECT	470uF 20% 10V
		< SWITCH >		C209	1-124-997-11	ELECT	470uF 20% 10V
S401	1-554-303-21	SWITCH, TACTILE (CONTINUE)		C210	1-126-024-11	ELECT	220uF 20% 16V
S402	1-554-303-21	SWITCH, TACTILE (REPEAT)		C211	1-124-997-11	ELECT	470uF 20% 10V
S403	1-554-303-21	SWITCH, TACTILE (■)		C212	1-164-159-11	CERAMIC	0.1uF 50V
S404	1-554-303-21	SWITCH, TACTILE (▶)		C213	1-126-012-11	ELECT	470uF 20% 16V
S405	1-554-303-21	SWITCH, TACTILE (SHUFFLE)		C214	1-126-012-11	ELECT	470uF 20% 16V
S406	1-554-303-21	SWITCH, TACTILE (FADER)					
S407	1-554-303-21	SWITCH, TACTILE (▷)					
S408	1-554-303-21	SWITCH, TACTILE (◀)					

MAIN

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
C301	1-126-022-11	ELECT	47uF	20%	16V	C378	1-126-022-11	ELECT	47uF	20%	16V
C302	1-126-301-11	ELECT	1uF	20%	50V	C379	1-106-347-00	MYLAR	1500PF	5%	200V
C305	1-126-022-11	ELECT	47uF	20%	16V	C380	1-106-347-00	MYLAR	1500PF	5%	200V
C306	1-164-159-11	CERAMIC	0.1uF		50V				< CONNECTOR >		
C307	1-164-159-11	CERAMIC	0.1uF		50V				< CONNECTOR >		
C308	1-164-159-11	CERAMIC	0.1uF		50V	♦ C204	1-564-511-11	PLUG, CONNECTOR 8P			
C311	1-130-491-00	MYLAR	0.047uF	5%	50V	♦ CN301	1-568-843-11	SOCKET, CONNECTOR 28P			
C312	1-161-374-11	CERAMIC	0.0015uF	20%	50V	♦ CN302	1-568-822-11	SOCKET, CONNECTOR 22P			
C313	1-161-494-00	CERAMIC	0.022uF		25V				< DIODE >		
C314	1-162-306-11	CERAMIC	0.01uF	20%	16V				< DIODE >		
C315	1-126-300-11	ELECT	0.47uF	20%	50V	D207	8-719-114-49	DIODE	RD7.5JSB2		
C317	1-164-159-11	CERAMIC	0.1uF		50V	D208	8-719-109-89	DIODE	RD5.6ESB2		
C319	1-162-282-31	CERAMIC	100PF	10%	50V	D209	8-719-987-63	DIODE	IN4148M		
C320	1-130-483-00	MYLAR	0.01uF	5%	50V	D328	8-719-987-63	DIODE	IN4148M		
C321	1-162-208-31	CERAMIC	24PF	5%	50V	D344	8-719-987-63	DIODE	IN4148M		
C322	1-126-022-11	ELECT	47uF	20%	16V				< IC >		
C324	1-164-159-11	CERAMIC	0.1uF		50V	IC202	8-759-630-21	IC	M5290P-16		
C325	1-162-205-31	CERAMIC	18PF	5%	50V	IC301	8-752-337-26	IC	CXD2500AQ		
C326	1-162-205-31	CERAMIC	18PF	5%	50V	IC302	8-752-342-65	IC	CXD2560M		
C327	1-164-159-11	CERAMIC	0.1uF		50V	IC303	8-752-349-01	IC	CXD2561AM		
C328	1-126-024-11	ELECT	220uF	20%	16V	IC306	8-759-945-58	IC	RC4558P		
C329	1-126-024-11	ELECT	220uF	20%	16V	IC307	8-759-945-58	IC	RC4558P		
C330	1-162-294-31	CERAMIC	0.001uF	10%	50V				< JACK >		
C331	1-164-159-11	CERAMIC	0.1uF		50V	J381	1-569-442-11	JACK, PIN 2P			
C332	1-164-159-11	CERAMIC	0.1uF		50V				< COIL >		
C333	1-164-159-11	CERAMIC	0.1uF		50V	C351	1-126-022-11	ELECT	47uF	20%	16V
C335	1-164-159-11	CERAMIC	0.1uF		50V	C352	1-164-159-11	CERAMIC	0.1uF		50V
C351	1-126-022-11	ELECT	47uF	20%	16V	C353	1-126-022-11	ELECT	47uF	20%	16V
C352	1-164-159-11	CERAMIC	0.1uF		50V	L301	1-408-403-00	INDUCTOR			3.3uH
C353	1-126-022-11	ELECT	47uF	20%	16V	L321	1-408-403-00	INDUCTOR			3.3uH
C354	1-164-159-11	CERAMIC	0.1uF		50V				< TRANSISTOR >		
C355	1-126-022-11	ELECT	47uF	20%	16V	Q202	8-729-140-96	TRANSISTOR	2SD774-34		
C356	1-164-159-11	CERAMIC	0.1uF		50V	Q203	8-729-141-83	TRANSISTOR	2SB1094-LK		
C357	1-126-022-11	ELECT	47uF	20%	16V	Q204	8-729-900-65	TRANSISTOR	DTA144ES		
C358	1-126-022-11	ELECT	47uF	20%	16V	Q205	8-729-900-89	TRANSISTOR	DTC144ES		
C361	1-162-280-21	CERAMIC	82PF	10%	50V	Q206	8-729-900-89	TRANSISTOR	DTC144ES		
C362	1-162-280-21	CERAMIC	82PF	10%	50V	Q207	8-729-230-45	TRANSISTOR	2SC2458-YGR		
C363	1-162-213-21	CERAMIC	39PF	10%	50V	Q208	8-729-141-83	TRANSISTOR	2SB1094-LK		
C364	1-162-213-21	CERAMIC	39PF	10%	50V	Q341	8-729-900-65	TRANSISTOR	DTA144ES		
C365	1-162-213-21	CERAMIC	39PF	10%	50V	Q342	8-729-900-65	TRANSISTOR	DTA144ES		
C366	1-162-213-21	CERAMIC	39PF	10%	50V	Q343	8-729-900-65	TRANSISTOR	DTA144ES		
C367	1-161-494-00	CERAMIC	0.022uF		25V	Q344	8-729-900-89	TRANSISTOR	DTC144ES		
C368	1-161-494-00	CERAMIC	0.022uF		25V	Q371	8-729-900-74	TRANSISTOR	DTC143TS		
C371	1-106-359-00	MYLAR	4700PF	5%	200V	Q372	8-729-900-74	TRANSISTOR	DTC143TS		
C372	1-106-359-00	MYLAR	4700PF	5%	200V	Q373	8-729-900-74	TRANSISTOR	DTC143TS		
C373	1-130-472-00	MYLAR	0.0012uF	5%	50V	Q374	8-729-900-74	TRANSISTOR	DTC143TS		
C374	1-130-472-00	MYLAR	0.0012uF	5%	50V	Q375	8-729-231-55	TRANSISTOR	2SC2878-AB		
C377	1-126-022-11	ELECT	47uF	20%	16V	Q376	8-729-231-55	TRANSISTOR	2SC2878-AB		

MAIN	POWER
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Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark	
< RESISTOR >								
R204	1-249-425-11	CARBON	4.7K 5% 1/4W	R362	1-249-432-11	CARBON	18K 5% 1/4W	
R205	1-249-425-11	CARBON	4.7K 5% 1/4W	R363	1-249-432-11	CARBON	18K 5% 1/4W	
R206	1-249-417-11	CARBON	1K 5% 1/4W	R364	1-249-432-11	CARBON	18K 5% 1/4W	
R207	1-249-417-11	CARBON	1K 5% 1/4W	R365	1-247-438-11	CARBON	56K 5% 1/4W	
R208	1-249-423-11	CARBON	3.3K 5% 1/4W	R366	1-247-438-11	CARBON	56K 5% 1/4W	
R209	1-249-413-11	CARBON	470 5% 1/4W	R367	1-247-438-11	CARBON	56K 5% 1/4W	
R214	1-249-417-11	CARBON	1K 5% 1/4W	R368	1-247-438-11	CARBON	56K 5% 1/4W	
R301	1-249-417-11	CARBON	1K 5% 1/4W	R369	1-249-419-11	CARBON	1.5K 5% 1/4W	
R302	1-249-417-11	CARBON	1K 5% 1/4W	R370	1-249-419-11	CARBON	1.5K 5% 1/4W	
R303	1-249-421-11	CARBON	2.2K 5% 1/4W	R371	1-249-419-11	CARBON	1.5K 5% 1/4W	
R304	1-249-417-11	CARBON	1K 5% 1/4W	R372	1-249-419-11	CARBON	1.5K 5% 1/4W	
R306	1-249-413-11	CARBON	470 5% 1/4W	R373	1-247-887-00	CARBON	220K 5% 1/4W	
R309	1-249-405-11	CARBON	100 5% 1/4W	R374	1-247-887-00	CARBON	220K 5% 1/4W	
R311	1-249-423-11	CARBON	3.3K 5% 1/4W	R375	1-249-409-11	CARBON	220 5% 1/4W	
R312	1-249-429-11	CARBON	10K 5% 1/4W	R376	1-249-409-11	CARBON	220 5% 1/4W	
R313	1-249-423-11	CARBON	3.3K 5% 1/4W	R377	1-249-409-11	CARBON	220 5% 1/4W	
R314	1-249-429-11	CARBON	10K 5% 1/4W	R378	1-249-409-11	CARBON	220 5% 1/4W	
R315	1-249-417-11	CARBON	1K 5% 1/4W	R383	1-249-413-11	CARBON	470 5% 1/4W	
R316	1-249-417-11	CARBON	1K 5% 1/4W	R384	1-249-413-11	CARBON	470 5% 1/4W	
R317	1-249-419-11	CARBON	1.5K 5% 1/4W	R385	1-249-393-11	CARBON	10 5% 1/4W	
R318	1-249-441-11	CARBON	100K 5% 1/4W	R386	1-249-393-11	CARBON	10 5% 1/4W	
R319	1-247-903-00	CARBON	1M 5% 1/4W	R396	1-247-848-11	CARBON	5.1K 5% 1/4W	
R320	1-249-417-11	CARBON	1K 5% 1/4W	R397	1-247-848-11	CARBON	5.1K 5% 1/4W	
R321	1-249-417-11	CARBON	1K 5% 1/4W	R398	1-247-848-11	CARBON	5.1K 5% 1/4W	
R322	1-249-417-11	CARBON	1K 5% 1/4W	R399	1-247-848-11	CARBON	5.1K 5% 1/4W	
< VIBRATOR >								
R323	1-249-417-11	CARBON	1K 5% 1/4W	X327	1-579-314-11	VIBRATOR, CRYSTAL		
R324	1-249-417-11	CARBON	1K 5% 1/4W	*****				
R325	1-249-417-11	CARBON	1K 5% 1/4W	*****				
R326	1-249-417-11	CARBON	1K 5% 1/4W	*****				
R327	1-247-903-00	CARBON	1M 5% 1/4W	*****				
R328	1-247-895-00	CARBON	470K 5% 1/4W	*****				
R343	1-249-441-11	CARBON	100K 5% 1/4W	CAPACITOR				
R344	1-249-441-11	CARBON	100K 5% 1/4W	*****				
R345	1-249-425-11	CARBON	4.7K 5% 1/4W	C201	1-124-572-11	ELECT	100uF 20% 60V	
R346	1-249-425-11	CARBON	4.7K 5% 1/4W	C202	1-126-059-11	ELECT	10uF 20% 60V	
R347	1-249-441-11	CARBON	100K 5% 1/4W	C203	1-124-556-11	ELECT	2200uF 20% 16V	
R351	1-249-436-11	CARBON	39K 5% 1/4W	C204	1-126-937-11	ELECT	4700uF 20% 16V	
R352	1-249-436-11	CARBON	39K 5% 1/4W	C221	1-164-159-11	CERAMIC	0.1uF 20% 60V	
R353	1-249-436-11	CARBON	39K 5% 1/4W	CONNECTOR				
R354	1-249-436-11	CARBON	39K 5% 1/4W	*****				
R355	1-249-436-11	CARBON	39K 5% 1/4W	*****				
R356	1-249-436-11	CARBON	39K 5% 1/4W	*****				
R357	1-249-436-11	CARBON	39K 5% 1/4W	*****				
R358	1-249-436-11	CARBON	39K 5% 1/4W	*****				
R361	1-249-432-11	CARBON	18K 5% 1/4W	D201	8-719-200-82	DIODE	11ES2	
				D202	8-719-110-03	DIODE	RD7.5ES-B2	
				D203	8-719-200-82	DIODE	11ES2	
* CN201 1-564-511-11 PLUG, CONNECTOR 8P								
* CN203 1-580-230-11 PIN, CONNECTOR (PC BOARD) 3P								
* C201 1-124-572-11 ELECT								
* C202 1-126-059-11 ELECT								
* C203 1-124-556-11 ELECT								
* C204 1-126-937-11 ELECT								
* C221 1-164-159-11 CERAMIC								
* D201 8-719-200-82 DIODE 11ES2								
* D202 8-719-110-03 DIODE RD7.5ES-B2								
* D203 8-719-200-82 DIODE 11ES2								

POWER

P.SW

Ref. No.	Part No.	Description	Remark
----------	----------	-------------	--------

D204	8-719-200-82	DIODE	11ES2
D205	8-719-200-82	DIODE	11ES2
D206	8-719-200-82	DIODE	11ES2

< IC >

IC201	8-759-633-42	IC	M5293L
-------	--------------	----	--------

< TRANSISTOR >

Q201	8-729-119-76	TRANSISTOR	2SA1175-HFE
------	--------------	------------	-------------

< RESISTOR >

R201	1-249-435-11	CARBON	33K 5% 1/4W
R202	1-249-438-11	CARBON	56K 5% 1/4W
R203	1-249-429-11	CARBON	10K 5% 1/4W

* 1-642-028-21 P.SW BOARD

< SWITCH >

△S201	1-571-722-11	SWITCH, VOLTAGE SELECTION	(E, Saudi Arabia)
-------	--------------	---------------------------	-------------------

S491	1-554-118-00	SWITCH, PUSH (1 KEY) (POWER)	
------	--------------	------------------------------	--

MISCELLANEOUS

△12	1-574-127-31	CORD, POWER (MADE IN FRANCE) (AEP)
△12	1-574-358-31	CORD, POWER (WITH CONNECTOR) (AUS)
△12	1-574-390-31	CORD, POWER (UK)
△12	1-575-651-21	CORD, POWER (MADE IN JAPAN) (AEP, IT, Saudi Arabia)
△12	1-575-653-21	CORD, POWER (E)
△12	1-590-836-11	CORD, POWER (US).

20	1-575-160-11	WIRE, FLAT TYPE (22 CORE)
22	1-569-007-11	ADAPTOR, CONVERSION (E)
23	1-569-008-11	ADAPTOR, CONVERSION (Saudi Arabia)
* 311	1-452-538-11	MAGNET
354	1-575-001-11	WIRE, FLAT TYPE (12 CORE)
△357	8-848-144-11	DEVICE, OPTICAL KSS-240A

M101	X-4917-523-3	MOTOR ASSY (SPINDLE)
M102	X-4917-504-1	MOTOR ASSY (SLED)
M191	A-4604-363-A	MOTOR (L) ASSY

△T901	1-449-921-11	TRANSFORMER, POWER (US)
△T901	1-449-922-11	TRANSFORMER, POWER (AEP, UK, IT, AUS)
△T901	1-449-923-11	TRANSFORMER, POWER (E, Saudi Arabia)

Ref. No.	Part No.	Description	Remark
----------	----------	-------------	--------

ACCESSIONS & PACKING MATERIALS

1-558-271-11	CORD, CONNECTION (MADE IN FRANCE)
--------------	-----------------------------------

1-559-533-11	CORD, CONNECTION (MADE IN JAPAN) (US, AEP, E, IT, AUS, Saudi Arabia)
--------------	--

3-754-846-11	MANUAL, INSTRUCTION (English, French, Spanish, Portuguese)
--------------	--

4-922-998-01	CUSHION (MADE IN JAPAN) (US, AEP, E, IT, AUS, Saudi Arabia)
--------------	---

4-941-548-01	LABEL, CLASS 1 (AEP, UK, IT, AUS)
--------------	-----------------------------------

4-948-882-01	INDIVIDUAL CARTON
--------------	-------------------

4-949-399-01	CUSHION (MADE IN FRANCE) (AEP, UK)
--------------	------------------------------------

HARDWARE LIST

#1	7-682-548-09	SCREW +BVTT 3X8 (S)
----	--------------	---------------------

#2	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S
----	--------------	---------------------------

#3	7-682-547-09	SCREW +B 3X6
----	--------------	--------------

#4	7-682-547-04	SCREW +BVTT 3X6 (S)
----	--------------	---------------------

#5	7-621-775-10	SCREW +B 2.6X4
----	--------------	----------------

#6	7-685-134-19	SCREW +BTP 2.6X8 TYPE2 N-S
----	--------------	----------------------------

#7	7-621-255-15	SCREW +P 2X3
----	--------------	--------------

AUS : Australian

IT : Italian

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

PARTS LIST

* Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

ACCESSORY & PACKING MATERIAL

<u>Part No.</u>	<u>Description</u>
-----------------	--------------------

1-465-962-11	REMOTE COMMANDER (Include ≈ 1) (RM-S171) (A10)
1-501-374-11	ANTENNA, LOOP
※1. 4-941-762-01	COVER BATTERY (RM-S171)
1-465-963-11	REMOTE COMMANDER (Include ≈ 2) (RM-S271) (A20)
※2. 3-707-584-01	COVER BATTERY (RM-S271)
3-754-598-51	MANUAL, INSTRUCTION (ENGLISH, F, E, RC) (E, EA, AUS Model) (A10)
3-754-669-61	MANUAL, INSTRUCTION (ENGLISH, F, E, RC) (E, EA, AUS Model) (A20)

F : FRENCH E : SPANISH

RC : CHINESE

*4-950-792-01 INDIVIDUAL CARTON (A10)
*4-951-320-01 INDIVIDUAL CARTON (A20:E2)
*4-951-321-01 INDIVIDUAL CARTON (A20:E3)
*4-951-322-01 INDIVIDUAL CARTON (A20:AUS)

EA : Saudi Arabia model

AUS : Australian model

Sony Corporation

Audio Group

9-957-155-11

English

92D1814-1

Printed in Japan

© 1992.4

Published by Customer Relations and Service Group

HST-A10

SERVICE MANUAL

*E Model
Australian Model*



- HST-A10 is the STEREO DECK RECEIVER in LBT-A10

SPECIFICATIONS

Tuner	
System	FM stereo
FM tuner section	FM/AM superheterodyne tuner
Tuning range	87.5 to 108 MHz
Antenna	75 ohms unbalanced
	300 ohms balanced
Intermediate frequency	10.7 MHz
AM tuning section (for Medea/Eastern model)	
Tuning range	SW: 5.95 to 17.90 MHz
	MW: 531 to 1,602 kHz
AM tuning section (model for other countries)	
Tuning range	531 to 1,602 kHz (at 9 kHz step)
	530 to 1,710 kHz (at 10 kHz step)
Antenna	AM loop antenna
	External antenna terminal
Intermediate frequency	450 kHz

Amplifier	
Peak music power output	400 W (6 ohms, 4 speakers driven)
Continuous RMS power output	28 W + 28 W (6 ohms, at 1 kHz, 5% THD)

Input	Jack type	Sensitivity	Impedance
CD IN	Phono	300 mV	47 kohms
VIDEO IN	Phono	300 mV	47 kohms
PHONO IN	Phono	3 mV	47 kohms
MIC	Phone	1 mV	10 kohms

Model Name Using Similar Mechanism	HST-D105
Tape Transport Mechanism Type	TCM-180VW-H7

Output	Jack type	Impedance
SURROUND SPEAKER	Phono	Accepts speakers of 8 – 16 ohms
HEADPHONES	Stereo phone	Accepts headphones of 8 ohms or more

Frequency response CD: 15 Hz to 50 kHz $+0_{-3}$ dB

Cassette deck
Recording system 4-track 2-channel stereo
Frequency response With Type II cassette (Sony UX-S)
40 Hz to 14 kHz (± 3 dB)
With Type I cassette (Sony HF-S)
40 Hz to 13 kHz (± 3 dB)
Wow and flutter 0.1% (WRMS)

General
Power requirements 110 – 120 V/220 – 240 V AC, adjustable
with the VOLTAGE SELECTOR,
50/60 Hz
Power consumption 75 W
Weight Approx. 6.9 kg
Dimensions Approx. 355 × 290 × 325 mm
(w/h/d, including projections)

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.

"DOLBY" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

COMPACT Hi-Fi STEREO SYSTEM
SONY®

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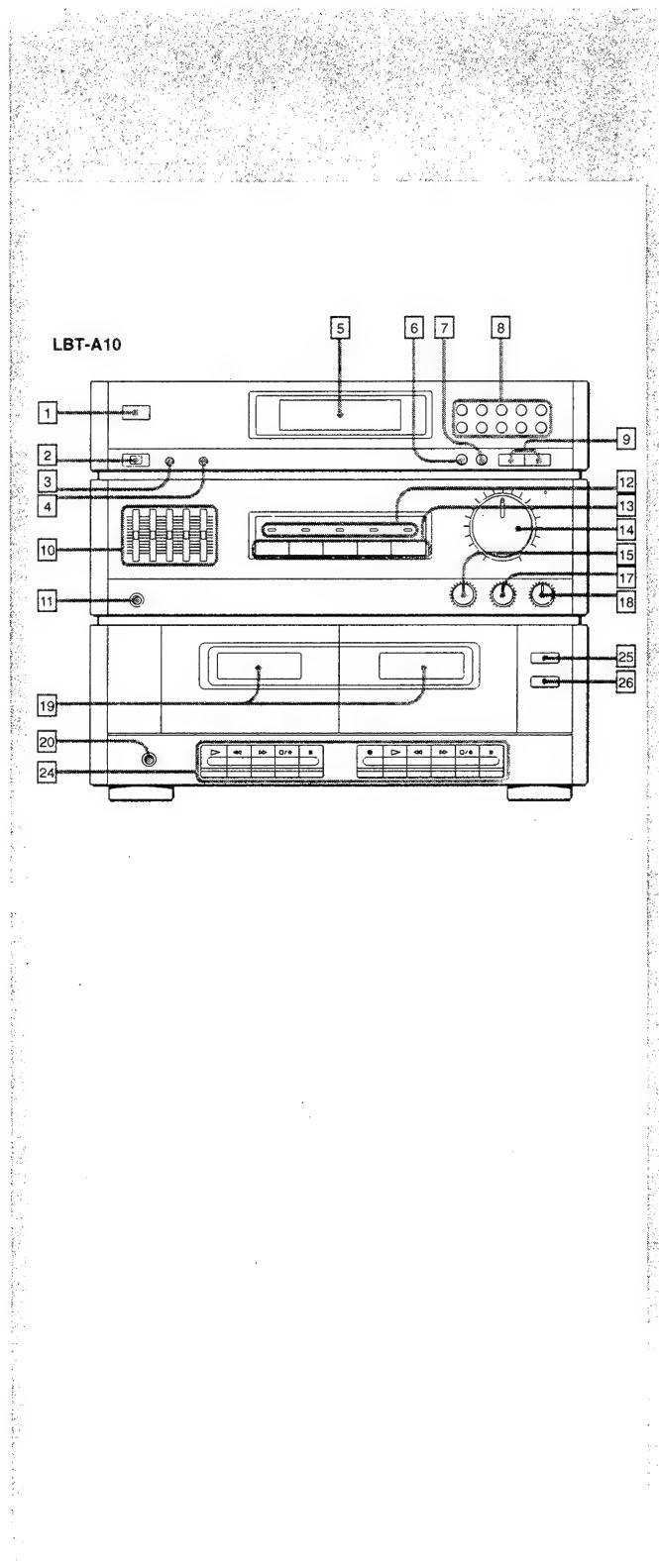
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SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK OR DOTTED LINE WITH MARK ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

SECTION 1 GENERAL

This section is extracted
from instruction manual.



Location of Controls

Refer to the pages indicated in () for details.

Tuner

- 1 POWER switch (12)
- 2 Remote sensor
- 3 MEMORY button (20)
- 4 ST/MUTE button (18)
- 5 Display window
- 6 SHIFT button (20)
- 7 BAND SELECT button (18)
- 8 Buttons for storing station frequencies (20)
- 9 DUAL MODE TUNING buttons (18, 20, 22)

Amplifier

- 10 GRAPHIC EQUALIZER controls (14)
- 11 HEADPHONES jack
- 12 Function indicators
- 13 Function selectors (VIDEO/TAPE/CD/TUNER/PHONO)
- 14 VOLUME control (14)
- 15 SURROUND control (14)
- 17 DBFB (dynamic bass feedback) control (14)
- 18 BALANCE control (14)

Cassette Deck

- 19 Cassette holders
- 20 MIC jack (32)*
- 24 Tape operation buttons (24)
 - ◀◀ Leftward fast winding
 - ▶▶ Rightward fast winding
 - ▶ Forward play
 - Stop/eject
 - PAUSE Pause
 - REC Record
- 25 TAPE SELECT button (24, 26, 30)
- 26 DUBBING SPEED button (30)

SECTION 2 ADJUSTMENTS

2-1. MECHANICAL ADJUSTMENTS

1. Clean the following parts with a denatured alcohol-moistened swab :

record/playback heads	pinch rollers
erase heads	rubber belts
capstan	idle
2. Demagnetize the record/playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

Torque Measurement

Torque	Torque meter	Meter reading
FWD	CQ-102C	30~70g·cm (0.42~0.97oz·inch)
FWD Back tension	CQ-102C	1.5~5.5g·cm (0.020~0.076oz·inch)
FF. REW	CQ-201B	63g·cm or more (0.87oz·inch)

2-2. ELECTRICAL ADJUSTMENTS

$$0\text{dB}=0.775\text{V (AF)}$$

$$0\text{dB}=0.1\mu\text{V (RF)}$$

CASSETTE DECK SECTION

1. Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head demagnetizer close to the erase head.)
2. Do not use a magnetized screwdriver for the adjustments.
3. After the adjustments, apply suitable locking compound to the parts adjusted.
4. The adjustments should be performed with the rated power supply voltage unless otherwise noted.
5. The adjustments should be performed in the order given in this service manual. (As a general rule, playback circuit adjustment should be completed before performing recording circuit adjustment.)
6. The adjustments should be performed for both L-CH and R-CH.

- Switches and controls should be set as follows unless otherwise specified.

DOLBY NR switch : OFF
 TAPE SELECT switch : TYPE I

Type	Signal	Used for
P-4-A100	10kHz, -10dB	Azimuth Adjustment
P-4-L300	315Hz, 0dB	PB Level Adjustment
WS-48B	3kHz, 0dB	Tape Speed Adjustment

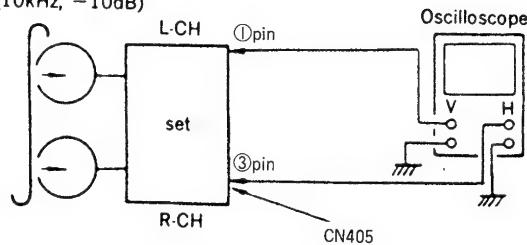
Record/Playback Head Azimuth Adjustment

Note: Perform this adjustments for both decks.

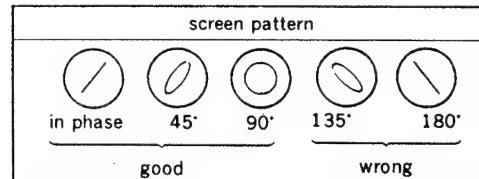
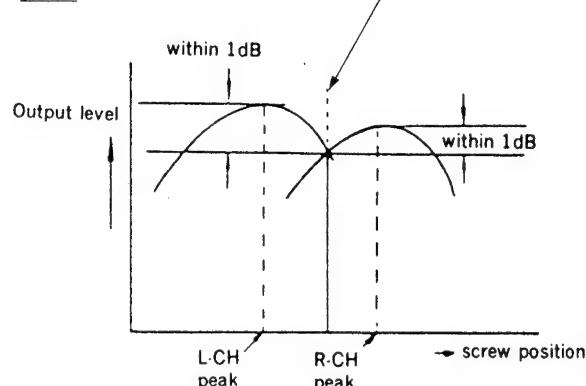
Procedure :

1. Mode : FWD playback

test tape
 P-4-A100
 (10kHz, -10dB)

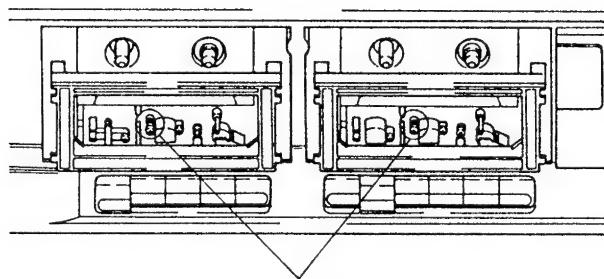


2. Turn the adjustment screw and check output peaks. If the peaks do not match for L-CH and R-CH, turn the adjustment screw so that outputs match within 1 dB of peak.



3. After the adjustments, apply suitable locking compound to the parts adjusted.

Adjustment Location :

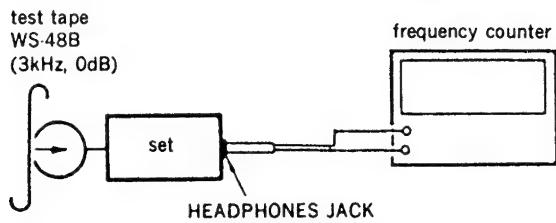


Adjustment screw
 REC/PB head (deck B)
 or PB head (deck A)

Tape Speed Adjustment

Procedure :

Mode : playback



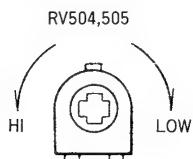
- High speed adjustment

1. Short pin CN407. Then at HIGH speed mode.
2. Adjust RV504 so that the frequency counter reads 6000 ± 20 Hz.
(Must be first Adjustment B deck)

- NORMAL speed adjustment

1. Remove the short pin from CN407. Then at NORMAL speed mode.
2. Adjust RV505 so that the frequency counter reads 3000 ± 10 Hz.

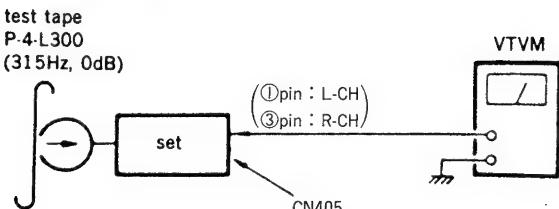
Adjustment Location: TC MAIN board



Playback Level Adjustment

Procedure :

Mode : FWD playback



DECK-A side RV400(L-CH), RV500(R-CH)

DECK-B side RV401(L-CH), RV501(R-CH)

so that the limits below are satisfied.

Adjustable limits :

CN405 level: $461.6 \text{--} 411.4 \text{mV} (-4.5 \text{--} -5.5 \text{dB})$

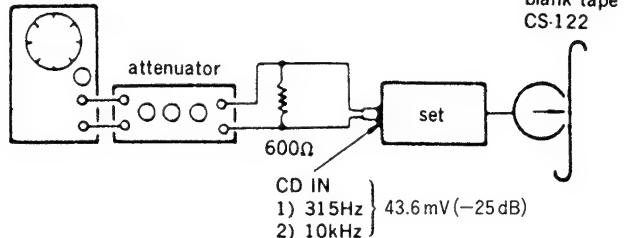
level difference between the channels: within 1.0dB

(See page 6 for Adjustment Location)

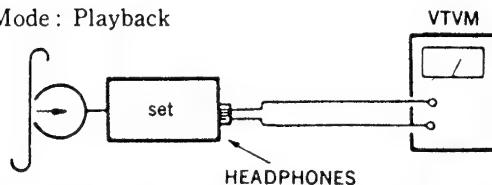
Record BIAS Current Adjustment

Procedure :

1. Mode : record
AF OSC



2. Mode : Playback



- 1) Supply a $43.6 \text{mV}(-25 \text{dB})$ signal (315Hz) from the CD IN. Adjust the VOLUME control so that a $24.5 \text{mV}(-30 \text{dB})$ signal is output to the headphones terminal.
- 2) Insert alignment tape CS-122 into deck B and put the set into the REC mode.
- 3) Adjust the signal frequency to 10kHz.
- 4) Put the set into the PB mode and adjust RV403(L CH) and RV503(R CH) in the REC mode so that the level difference between 315Hz and 10kHz is within $0 \pm 0.5 \text{dB}$.
- 5) Repeatedly put the set into the REC and PB modes two to four times and adjust the bias.

Adjustable limits :

The HEADPHONES level of 10kHz signal relative to that of 315Hz: $0 \text{dB} \pm 0.5 \text{dB}$

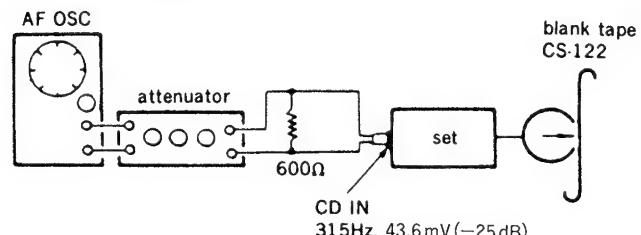
Record Level Adjustment

Setting :

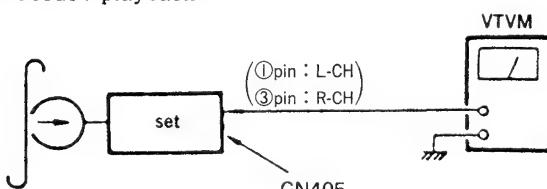
TAPE SELECT : TYPE I

Procedure :

1. Mode : record



2. Mode : playback



- (1) Supply a 43.6mV(-25dB) signal (315Hz) from the CD terminal.
- (2) Insert alignment tape CS-122 into deck B and record the signal. Then playback the recorded portion of the tape and adjust RV402(L-CH) and RV502(R-CH) so that the 43.6mV (-25dB) signal output is obtained at CN405 terminal.

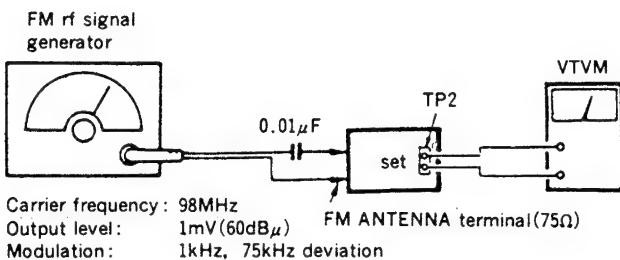
Adjustable limits :

CN 405 level : 46.2—41.1mV(-24.5—-25.5dB)

TUNER SECTION

As FM FRONT-END FE301 is difficult to repair if faulty, replace it with new one.

FM NULL Adjustment



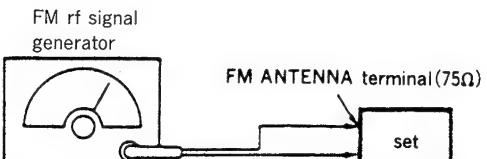
Procedure :

1. Tune the set to 98 MHz.
2. Adjust T301 for 0V reading on the VTVM.

FM Tuned Level Adjustment

Setting:

STEREO/MUTE : OFF

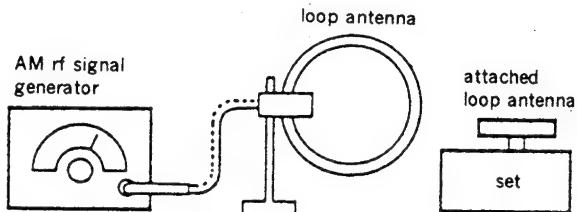


Carrier frequency: 98MHz
Output level: 0.018mV(25dB μ)
Modulation: 1kHz, 75kHz deviation

Procedure :

1. Tune the set to 98 MHz.
2. Adjust RV302 to the point where "TUNED" sign on FL601 just turns light.

• AM SECTION



Carrier frequency: 999kHz
Modulation: 400Hz, 30% modulation

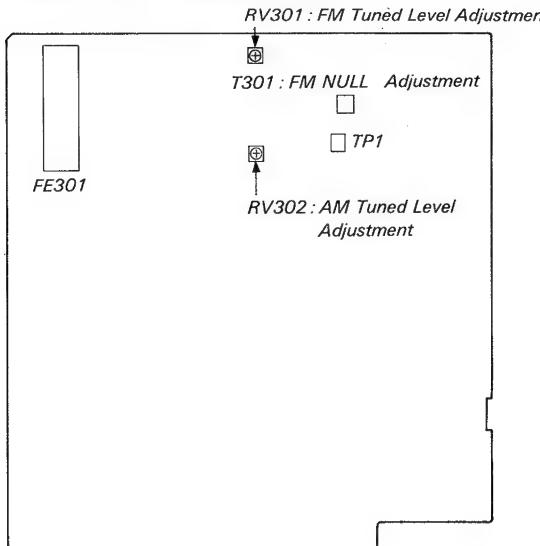
AM Tuned Level Adjustment

• AM BAND

1. Set loop antenna input level to 2.5mV (50 dB μ /m) and no signal tuned light should not on.
2. Tune the set to 999kHz.
3. Adjust RV301 to the point where "TUNED" sign on FL601 just turns light.

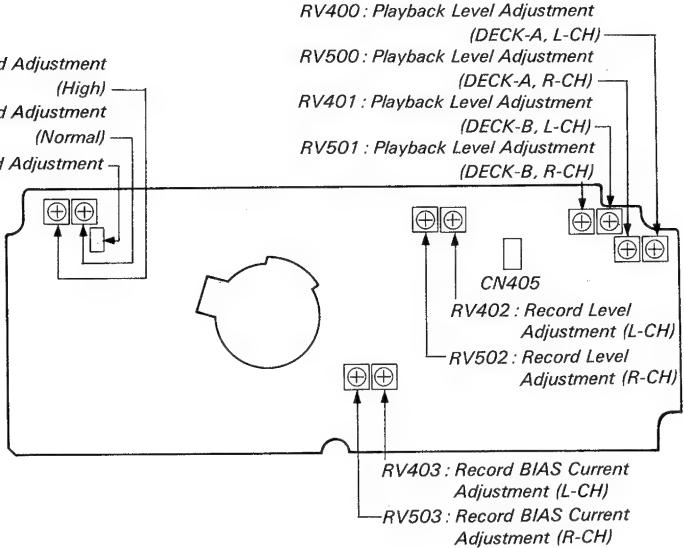
Adjustment Location :

MAIN BOARD (Component side)



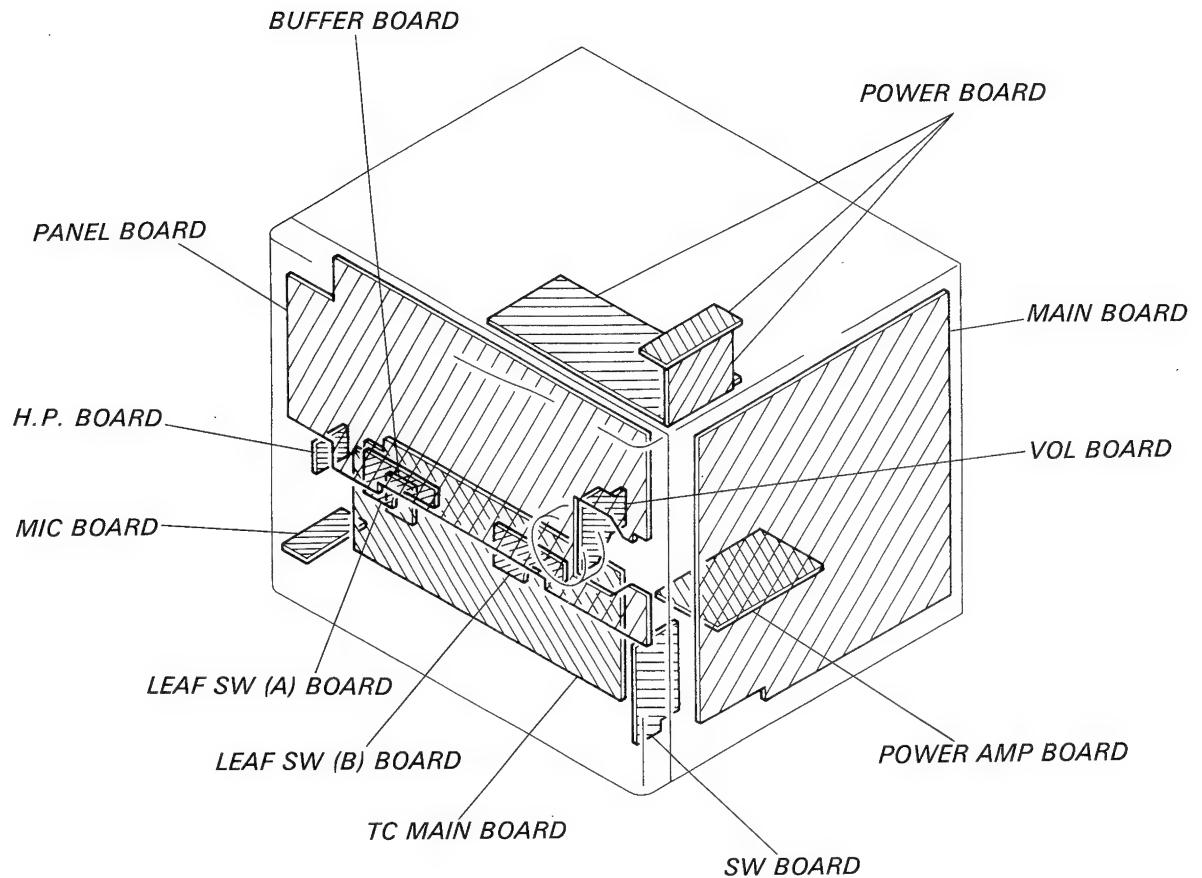
Adjustment Location :

TC MAIN BOARD (Component side)



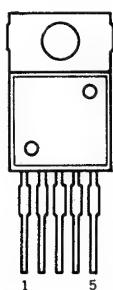
SECTION 3 DIAGRAMS

3-1. CIRCUIT BOARDS LOCATION

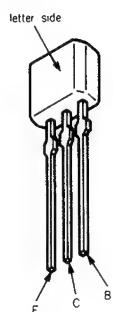


3-2. SEMICONDUCTOR LEAD LAYOUTS.

L78MR06



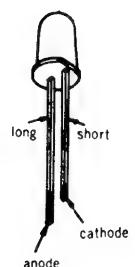
2SA1175-HFE
2SC2785-HFE



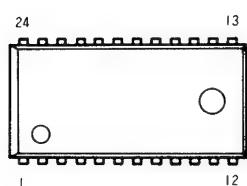
2SC3112-B
2SC945-P



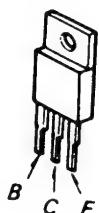
SEL1210S



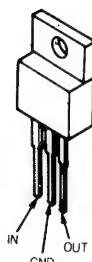
LC7218



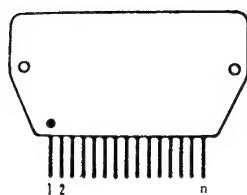
2SB1094-LK
2SC1815-Y
2SD2012



M5F7807L
M5F7907L
TA7812S

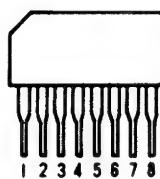


STK4122MK2



(Marking side View)

μ PC1237HA



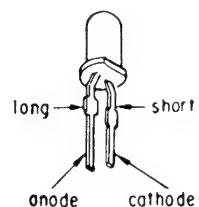
2SC2669-OY
2SC3622A-LK
DTA114ES
DTA124ES
DTA144ES
DTC114ES
DTC124ES
DTC144ES



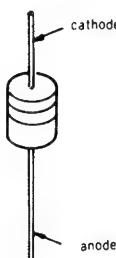
2SK246-GR3



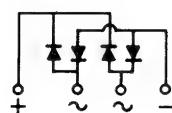
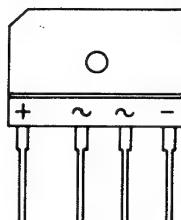
SEL2210S-D



11ES2
1N4148M
UZ-3.9BSB
UZL-12M3
UZL-33L
UZP-5.6B



PBA-402



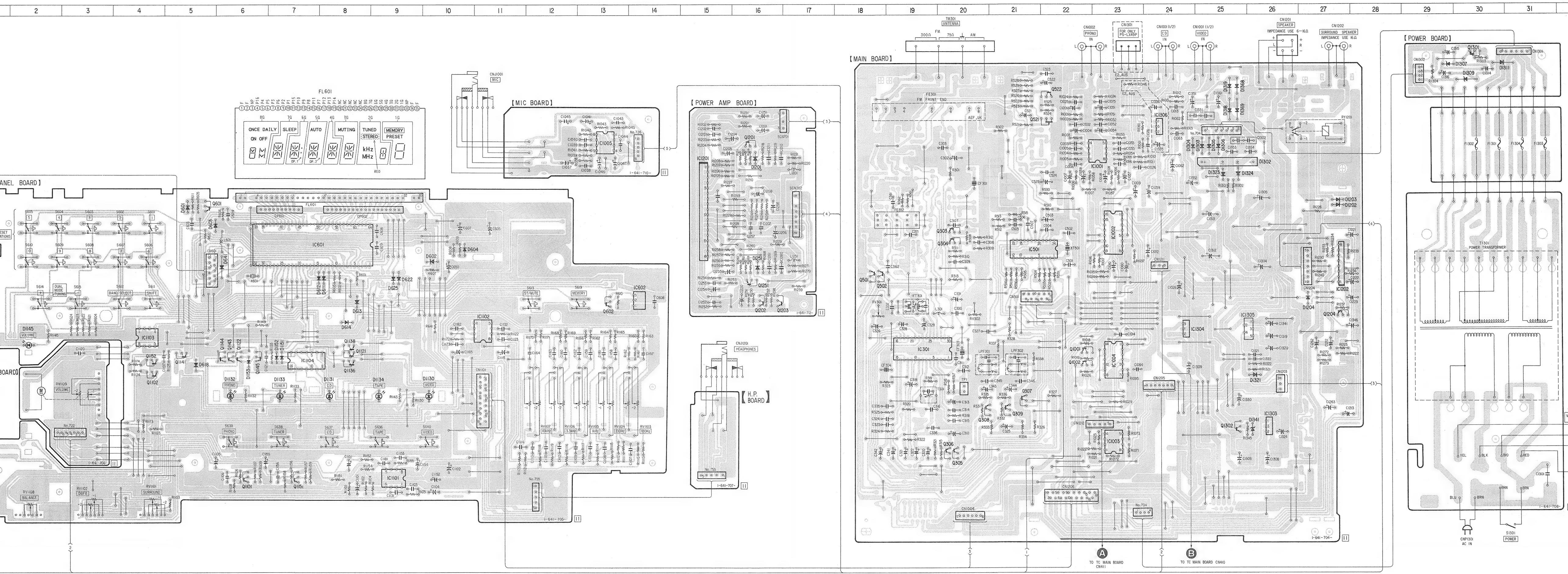
3-3. PRINTED WIRING BOARDS -AUDIO Section-
 • See page 8 for semiconductor lead layouts.
 • See page 7 for circuit boards location.

• Semiconductor Location

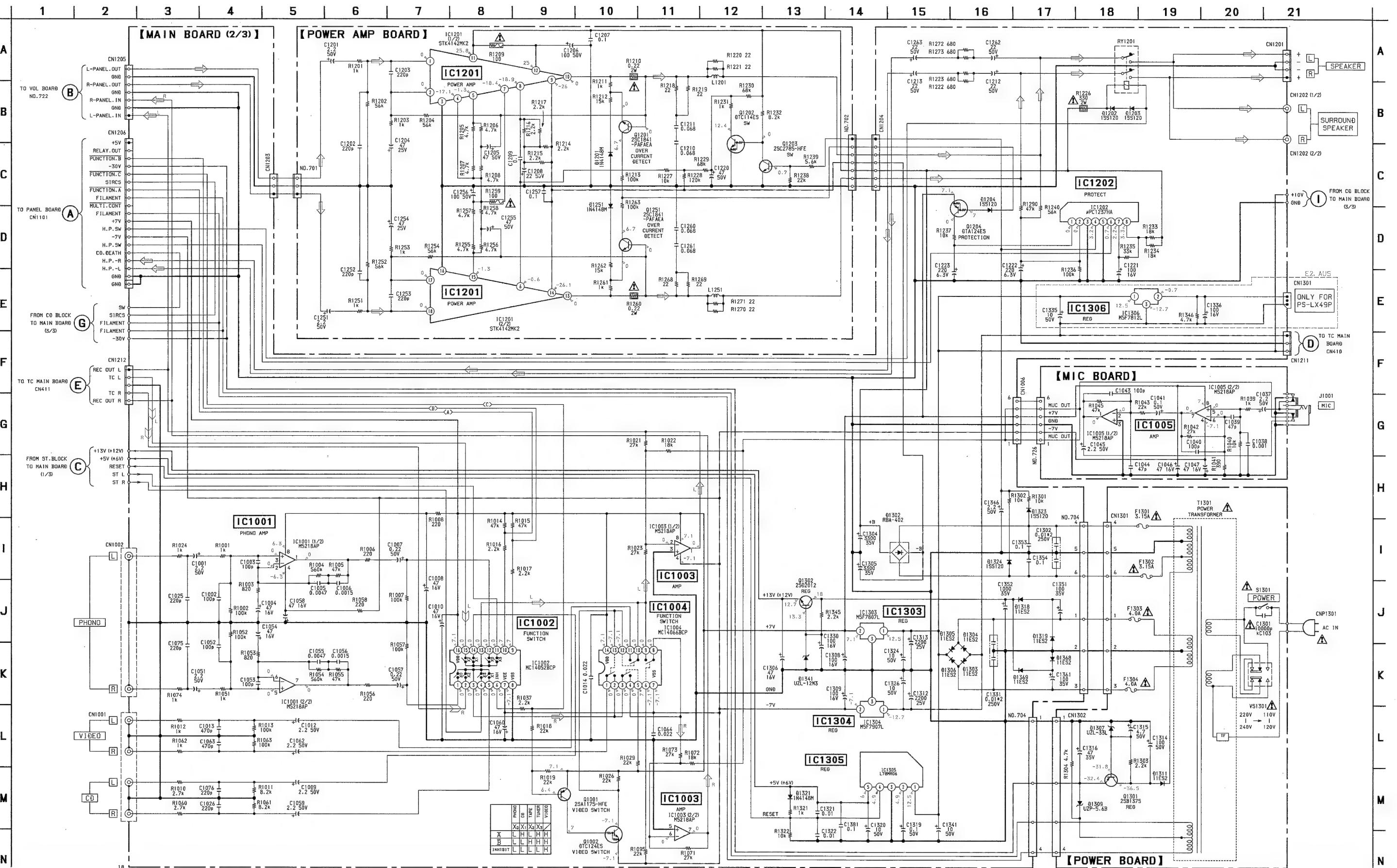
Ref. No.	Location	Ref. No.	Location
D601	D-5	IC1003	I-23
D602	E-10	IC1004	G-23
D603	D-5	IC1005	C-13
D604	E-10	IC1101	I-9
D611	F-8	IC1102	F-11
D612	F-8	IC1103	G-4
D613	F-8	IC1104	G-7
D614	F-8	IC1201	C-15
D618	G-5	IC1202	F-27
D622	F-9	IC1303	H-26
D625	F-9	IC1304	G-24
D641	E-9	IC1305	F-26
D1130	H-10	IC1306	B-24
D1131	H-8		
D1132	H-6	Q303	D-20
D1133	H-7	Q304	E-20
D1134	H-9	Q305	I-20
D1145	G-2	Q306	I-20
D1151	G-7	Q307	H-21
D1152	G-7	Q308	H-20
D1153	G-6	Q309	H-21
D1201	C-16	Q501	F-18
D1202	D-27	Q502	F-18
D1203	D-27	Q521	B-21
D1204	F-27	Q522	B-22
D1251	E-16	Q601	D-5
D1302	C-26	Q602	F-13
D1303	C-25	Q1001	I-6
D1304	C-24	Q1002	G-22
D1305	C-25	Q1101	I-6
D1306	C-25	Q1102	H-4
D1307	A-30	Q1121	G-8
D1309	B-30	Q1122	G-6
D1311	A-30	Q1136	G-8
D1318	B-25	Q1138	G-8
D1319	B-25	Q1141	G-5
D1321	H-26	Q1143	G-6
D1323	D-25	Q1144	G-6
D1324	D-25	Q1145	G-6
D1341	H-26	Q1151	I-7
D1368	B-25	Q1152	G-4
D1369	B-25	Q1201	C-16
		Q1202	F-16
IC301	G-19	Q1203	F-16
IC501	E-21	Q1204	F-27
IC601	E-8	Q1251	F-16
IC602	F-14	Q1301	A-30
IC1001	C-23	Q1302	H-25

Note:
 • ○ : parts extracted from the component side.
 • ■ : Pattern on the side which is seen.

AUS: Australian
MY: Malaysian

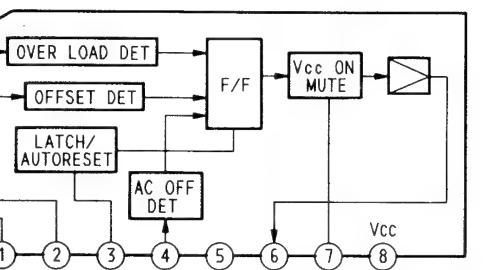


3-4. SCHEMATIC DIAGRAMS—AUDIO Section—



• IC Block Diagrams

IC1202 μPC1237HA



Note:

- All capacitors are in μF unless otherwise noted. pF: $\mu\mu\text{F}$ 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.
- △ : internal component.
- : nonflammable resistor.
- : fusible resistor.
- : printed resistor.

Note: The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

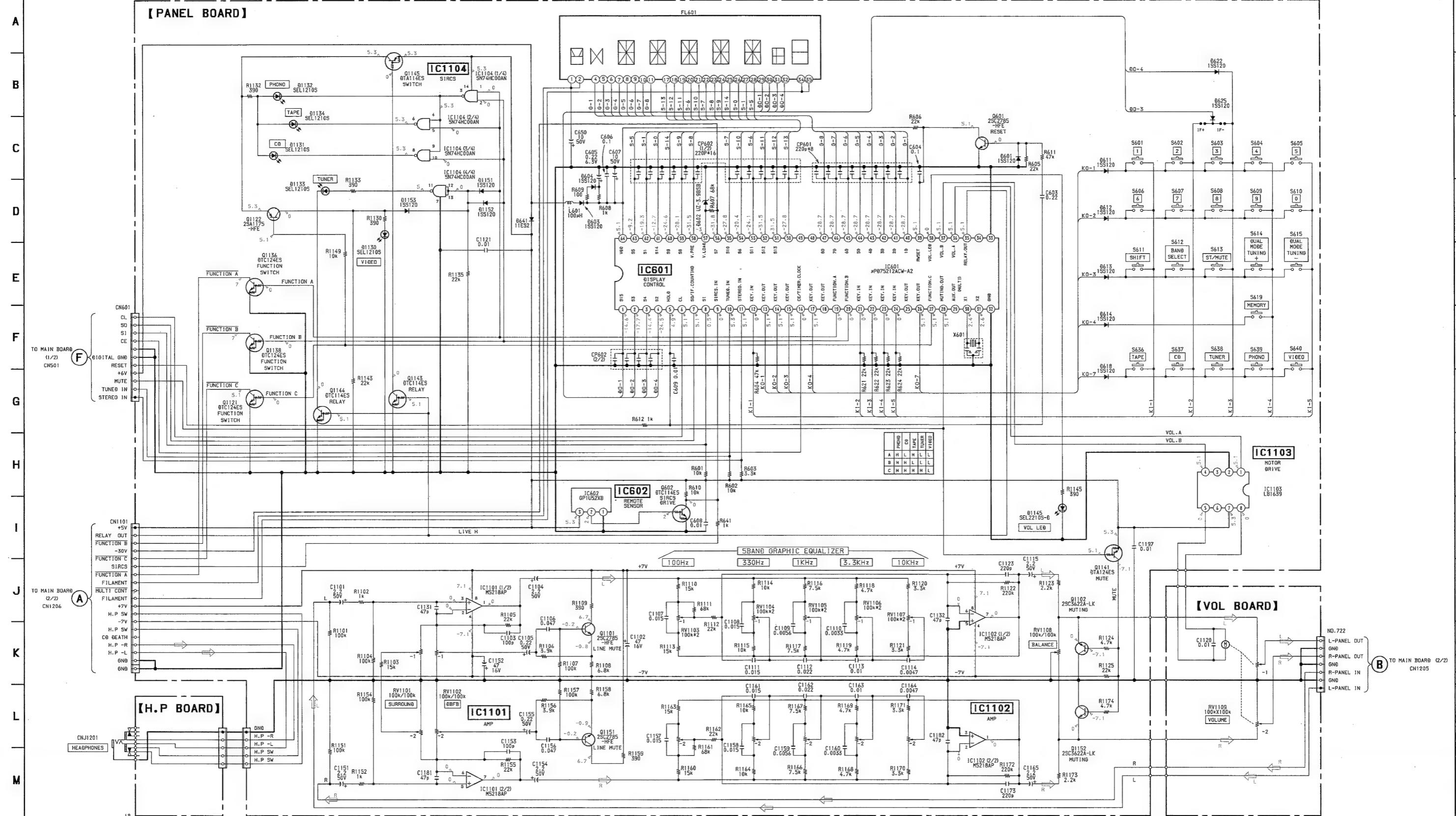
- : B+ Line
- - - : B- Line
- : adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- Voltages are taken with a VOM (Input Impedance $10\text{M}\Omega$). Voltage variations may be noted due to normal production tolerances.
- Signal path.

AUS: Australian
MY: Malaysian

3-5. SCHEMATIC DIAGRAMS—PANEL Section—

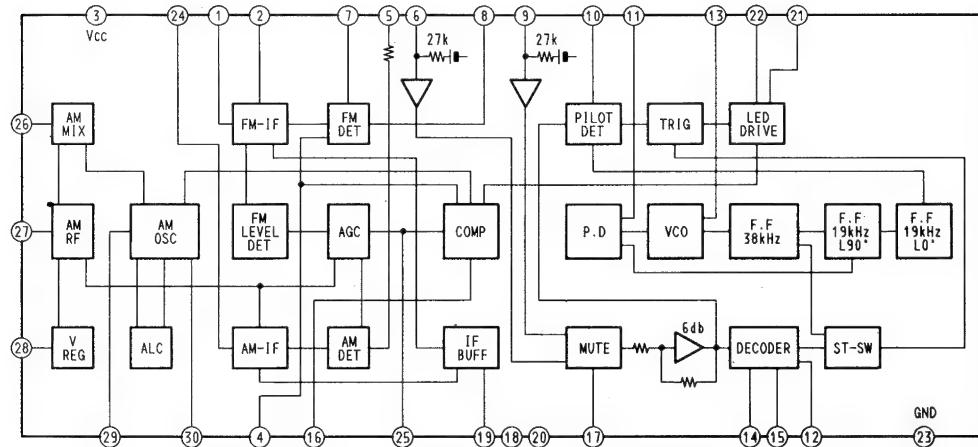
• See page 17 for note.

1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22

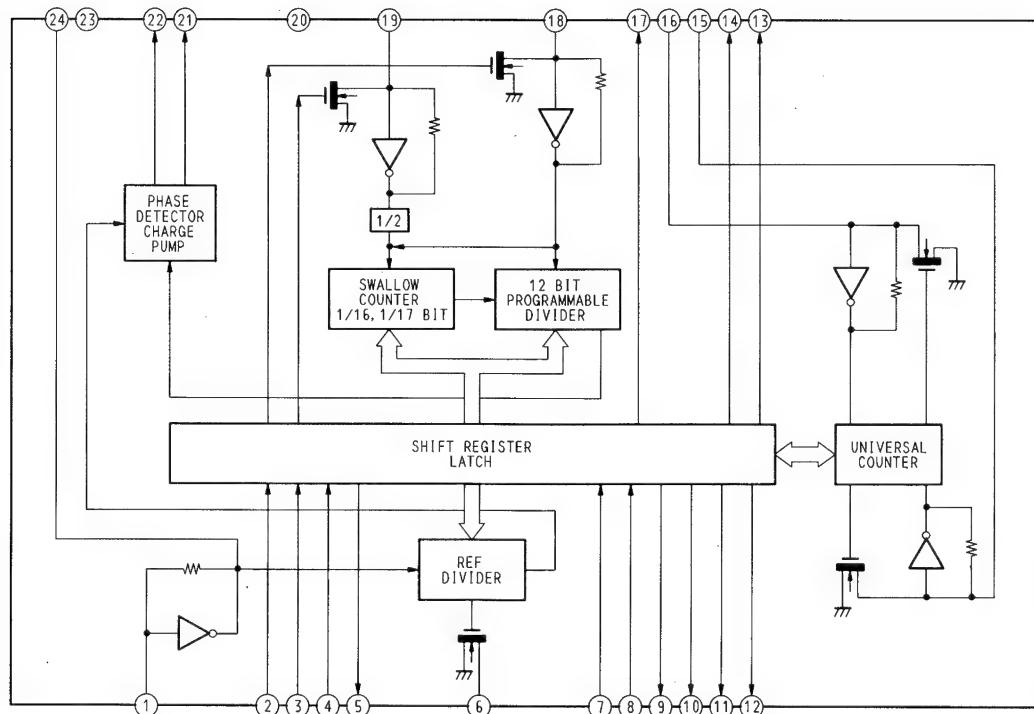


● IC Block Diagrams

IC301 LA1851N

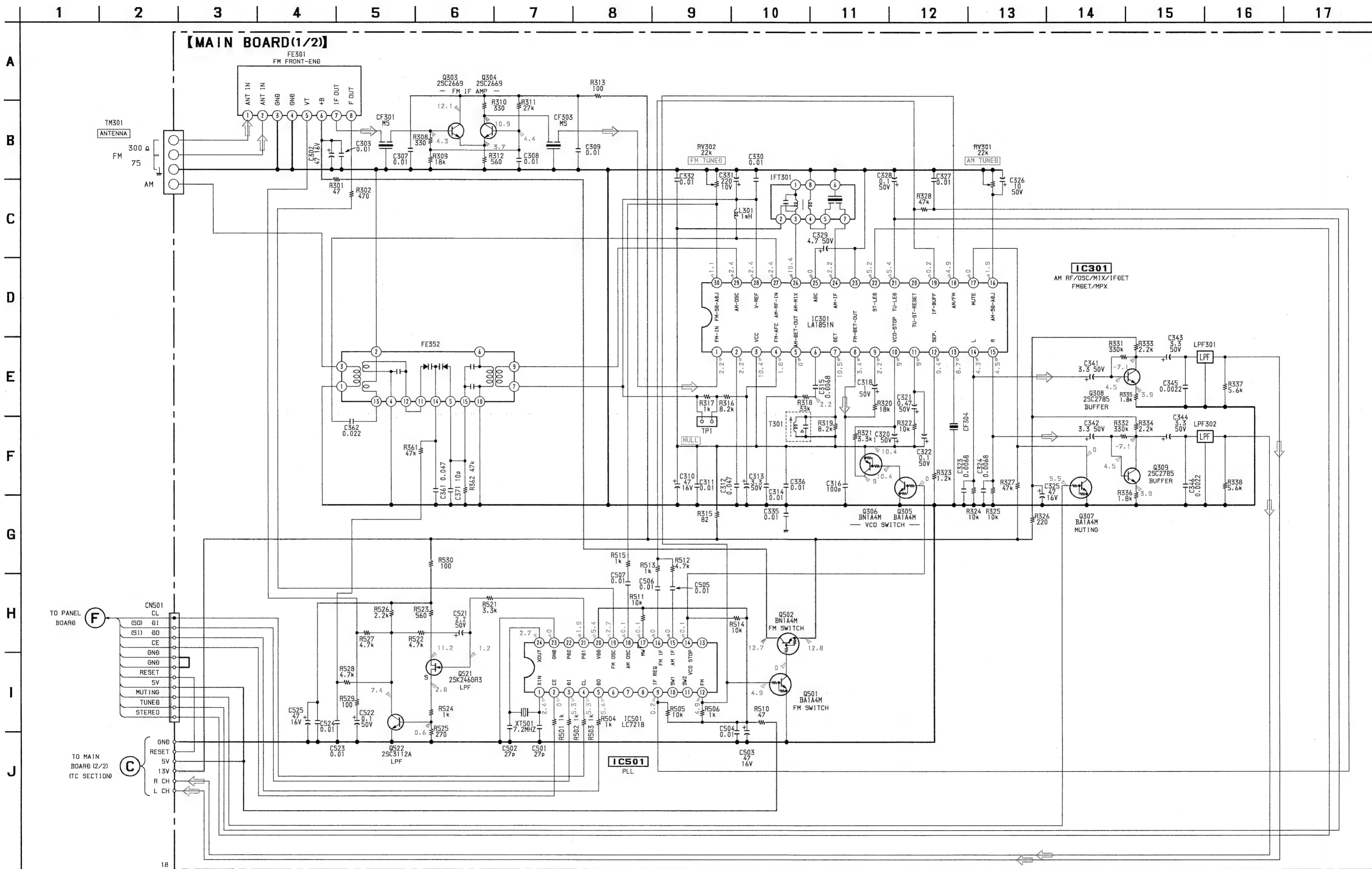


IC501 LC7218

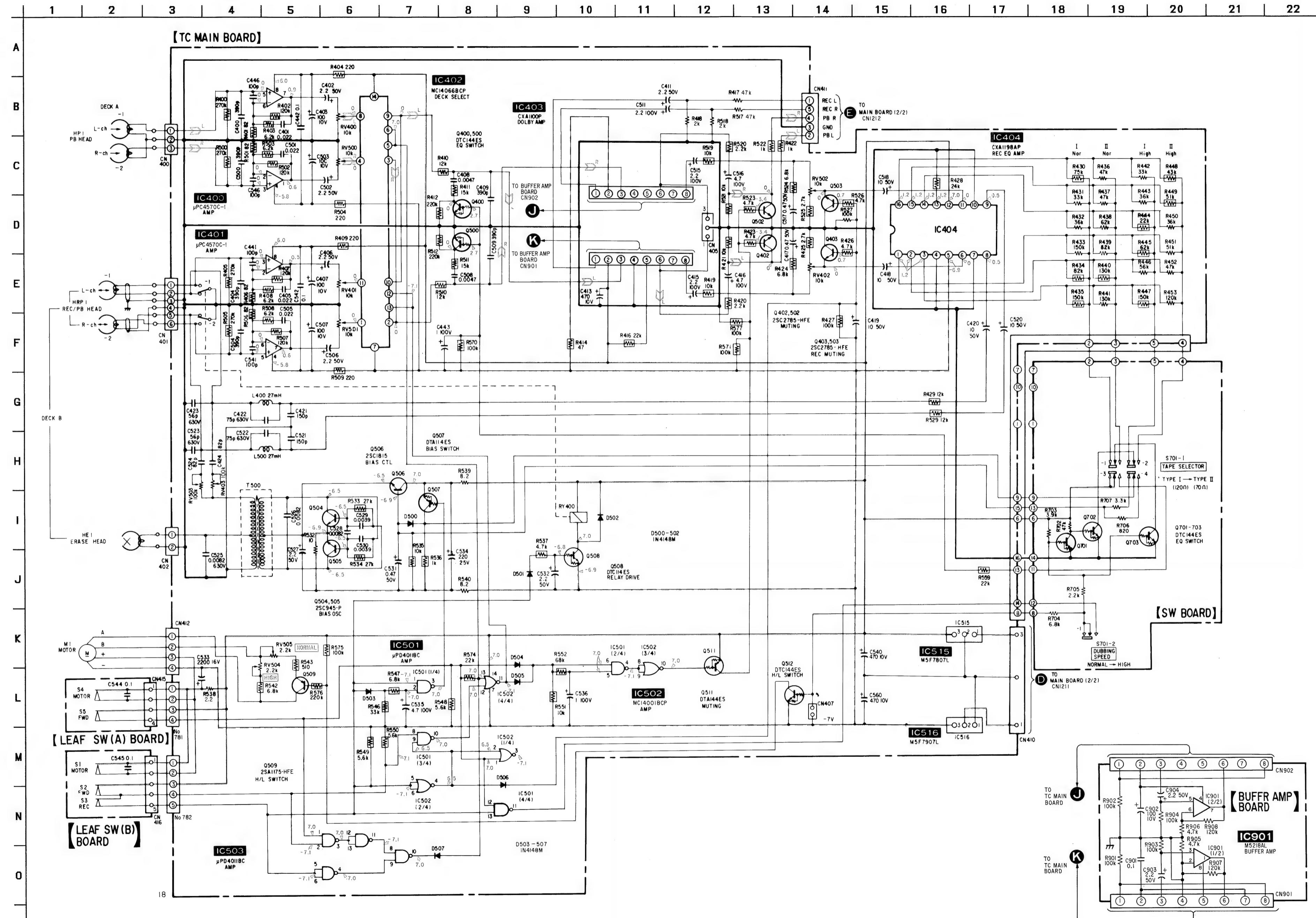


3-6. SCHEMATIC DIAGRAMS—TUNER Section—

• See page 17 for note.



• See page 17 for note.

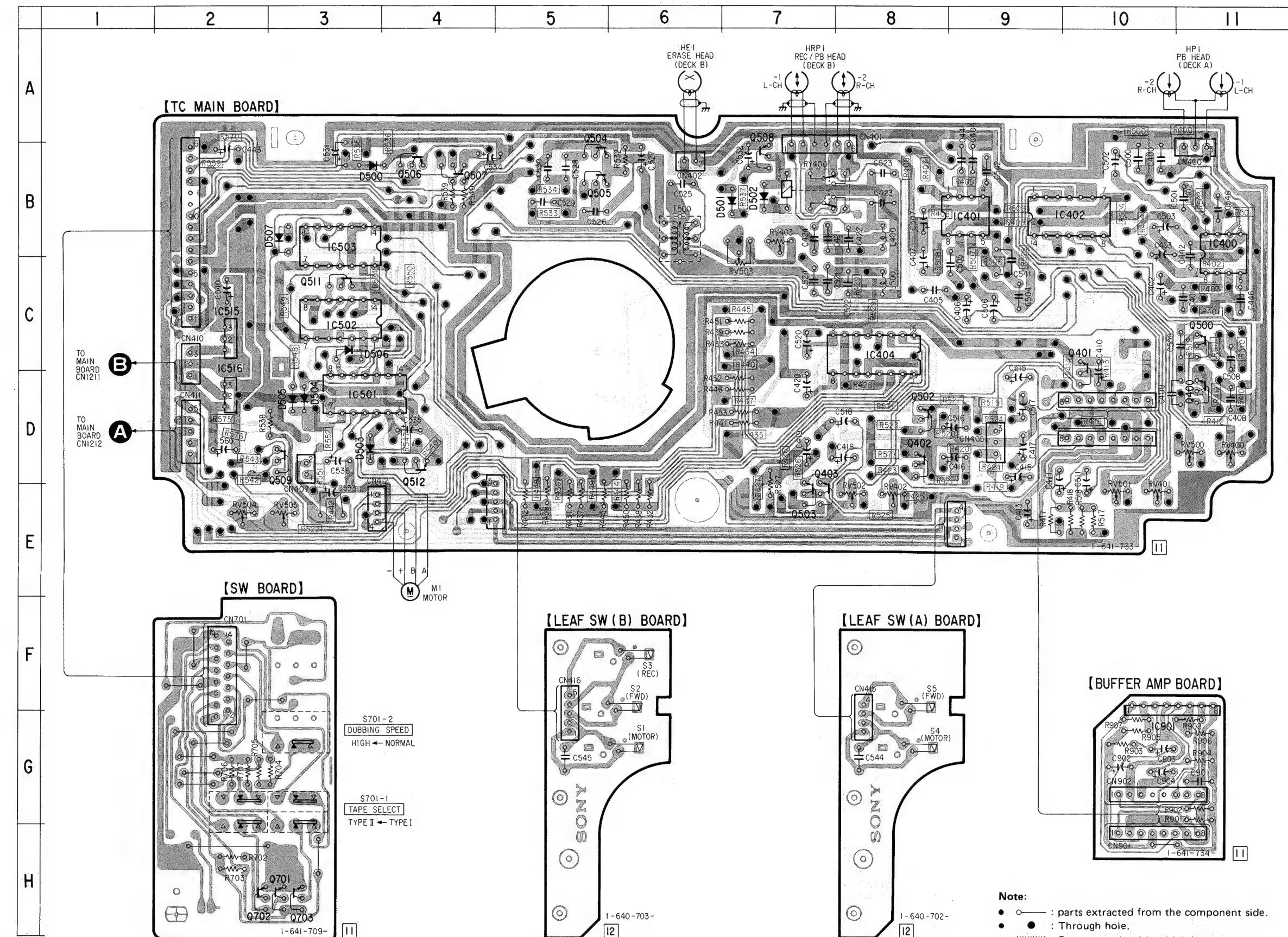


3-8. PRINTED WIRING BOARDS -TC Section-

- See page 8 for semiconductor lead layouts.
- See page 7 for circuit boards location.

● Semiconductor Location

Ref. No.	Location
D500	B-3
D501	B-7
D502	B-7
D503	D-3
D504	D-3
D505	D-3
D506	C-3
D507	B-3
IC400	B-11
IC401	B-9
IC402	B-10
IC404	C-8
IC501	D-3
IC502	C-3
IC503	B-3
IC515	C-2
IC516	D-2
IC517	G-10
Q400	D-11
Q401	C-10
Q402	D-8
Q403	E-7
Q500	C-11
Q502	D-8
Q503	E-7
Q504	B-5
Q505	B-5
Q506	B-4
Q507	B-4
Q508	B-8
Q509	D-3
Q511	C-3
Q512	D-4
Q701	H-3
Q702	H-2
Q703	H-3



Note:

- : parts extracted from the component side.
- : Through hole.
- : Pattern on the side which is seen.
- ◎ : Pattern of the rear side.
- : Printed resistor from the rear side.

SECTION 4 EXPLODED VIEWS

NOTE:

* -XX, -X mean standardized parts, so they may have some differences from the original one.

• Color Indication of Appearance Parts

Example:

KNOB, BALANCE(WHITE)...(RED)

↑ ↑
Parts color Cabinet's color

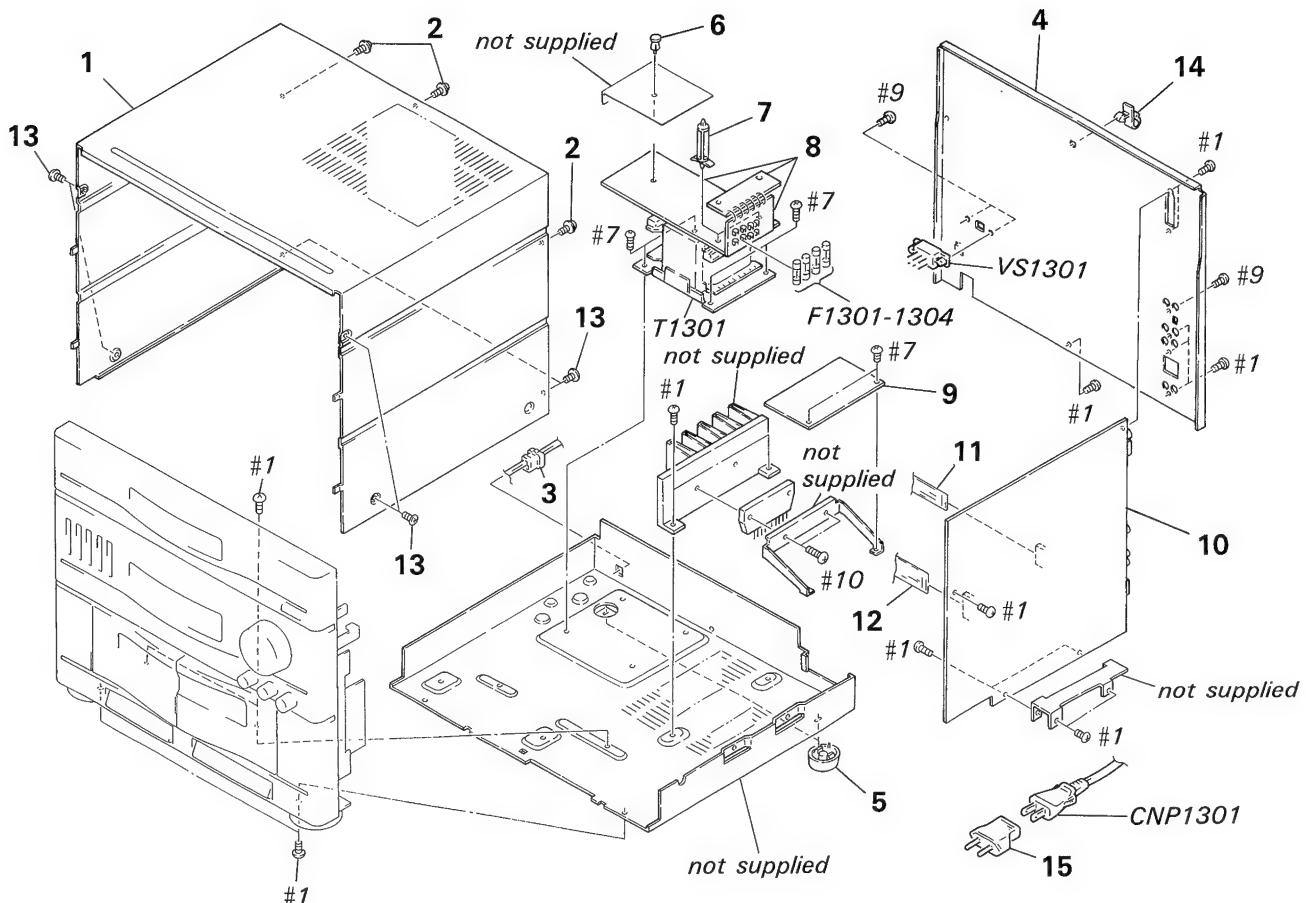
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- hardware (#mark) list is given in the last of this parts list.

The components identified by mark or dotted line with mark are critical for safety. Replace only with part number specified.

AUS: Australian

MY: Malaysian

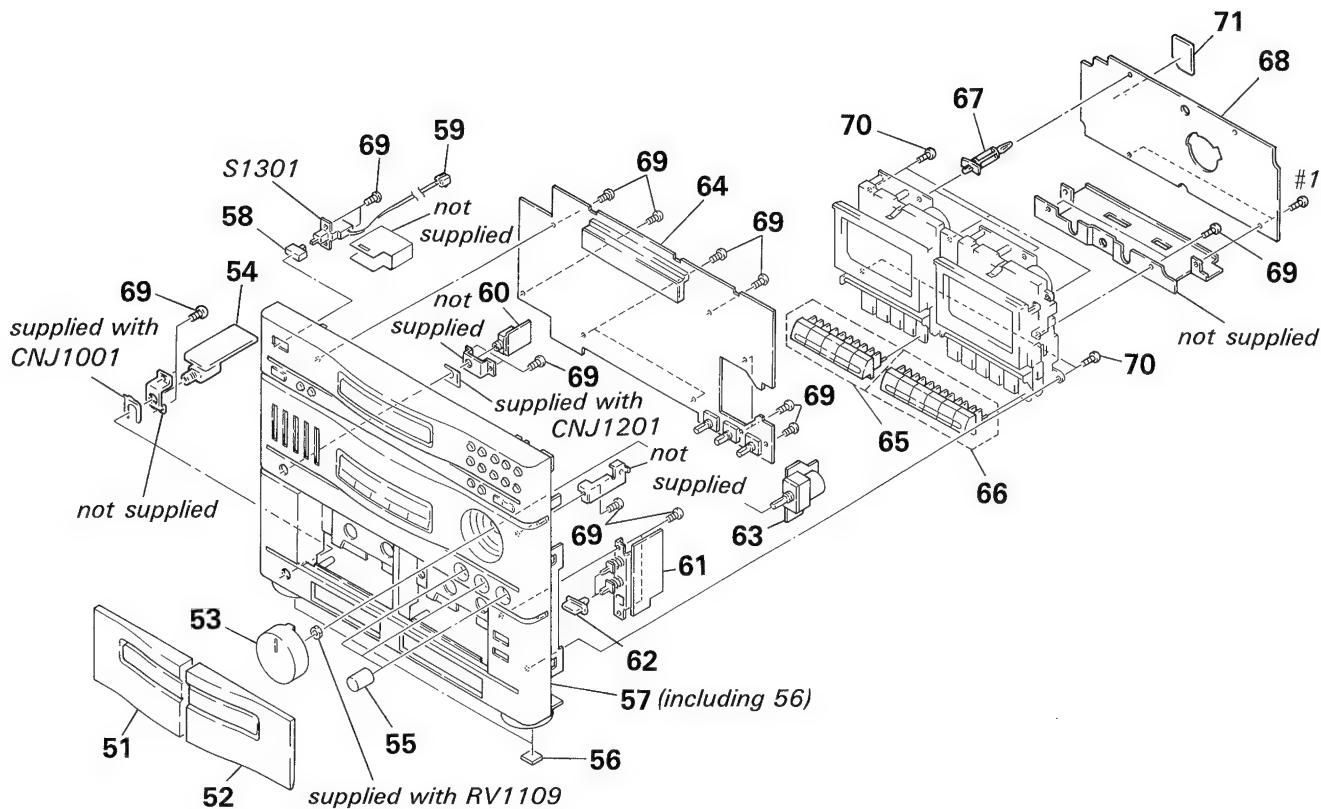
4-1. CABINET SECTION



Ref. No.	Part No.	Description	Remark
* 1	4-942-291-11	CASE	
2	4-929-973-01	SCREW (CASE, 3 POINT)	
* 3	3-703-244-00	BUSHING (2104), CORD (AUS)	
* 3	3-703-571-31	BUSHING (S) (4516), CORD (E, MY)	
* 4	4-948-282-71	PANEL, BACK (E, MY)	
* 4	4-948-282-91	PANEL, BACK (AUS)	
5	X-4941-228-1	FOOT ASSY	
6	4-812-134-11	RIVET NYLON, 3.5	
* 7	4-924-098-81	HOLDER, PC BOARD	
* 8	1-641-708-11	POWER BOARD	
* 9	A-4345-918-A	POWER AMP BOARD, COMPLETE	
* 10	A-4345-915-A	MAIN BOARD, COMPLETE (E2, AUS)	
* 10	A-4356-064-A	MAIN BOARD, COMPLETE (E3, MY)	

Ref. No.	Part No.	Description	Remark
11	1-590-459-11	WIRE, FLAT TYPE (11 CORE)	
12	1-590-578-11	WIRE, FLAT TYPE (19 CORE)	
13	3-363-099-01	SCREW (CASE +3X8 TP2)	
* 14	4-949-235-01	HOOK	
* 15	1-569-007-11	ADAPTER, CONVERSION 2P (E3, MY)	
	△CNP13011-575-653-11	CORD, POWER (E, MY)	
	△CNP13011-690-608-11	CORD, POWER (WITH CONNECTOR) (AUS)	
	△F1301 1-532-237-00	FUSE, TIME LAG (3. 15A)	
	△F1302 1-532-237-00	FUSE, TIME LAG (3. 15A)	
	△F1303 1-532-203-00	FUSE (2. 0A)	
	△F1304 1-532-203-00	FUSE (2. 0A)	
	△T1301 1-450-311-11	TRANSFORMER, POWER	
	△VS1301 1-570-046-21	SWITCH, VOLTAGE CHANGE	

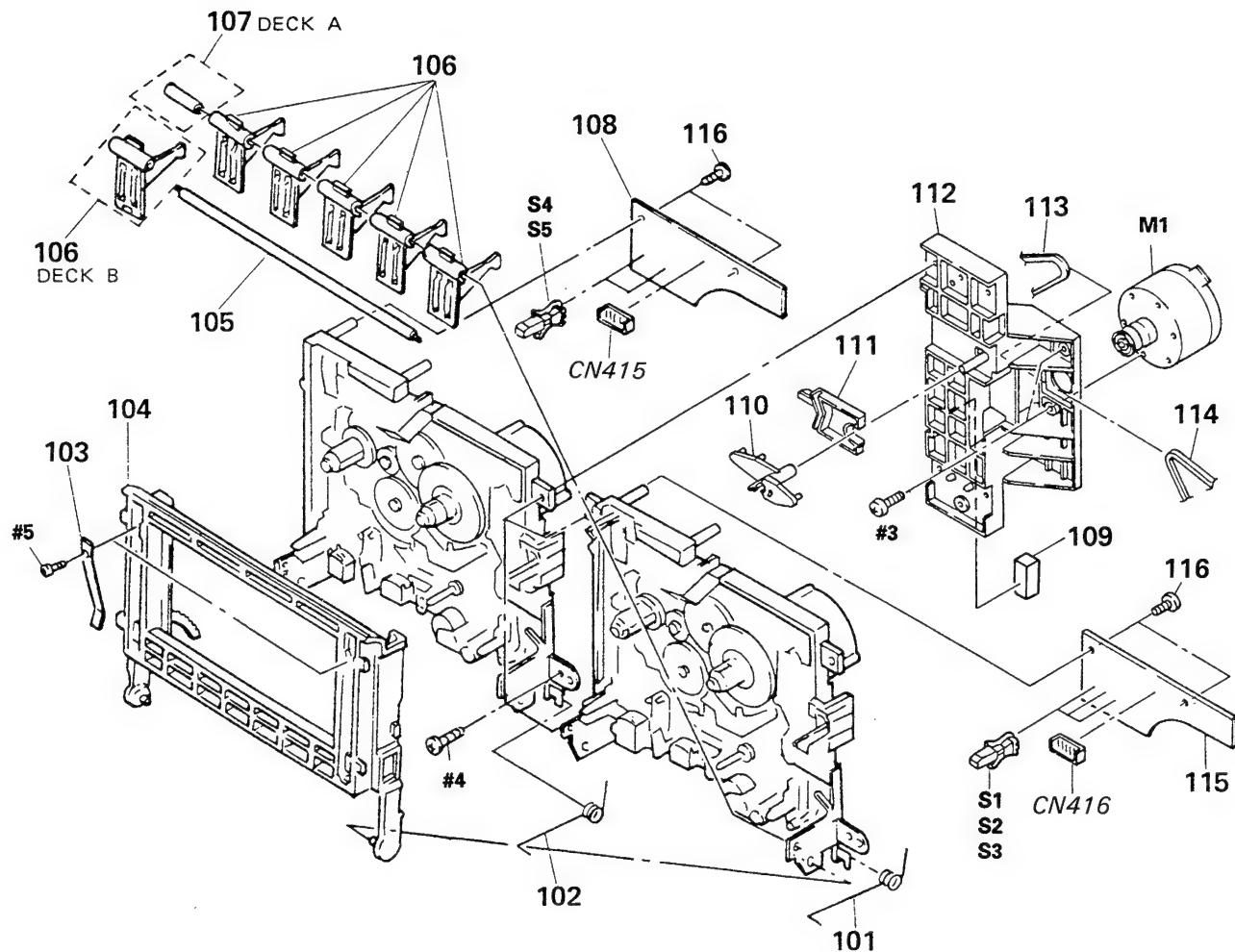
4-2. FRONT PANEL SECTION



The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

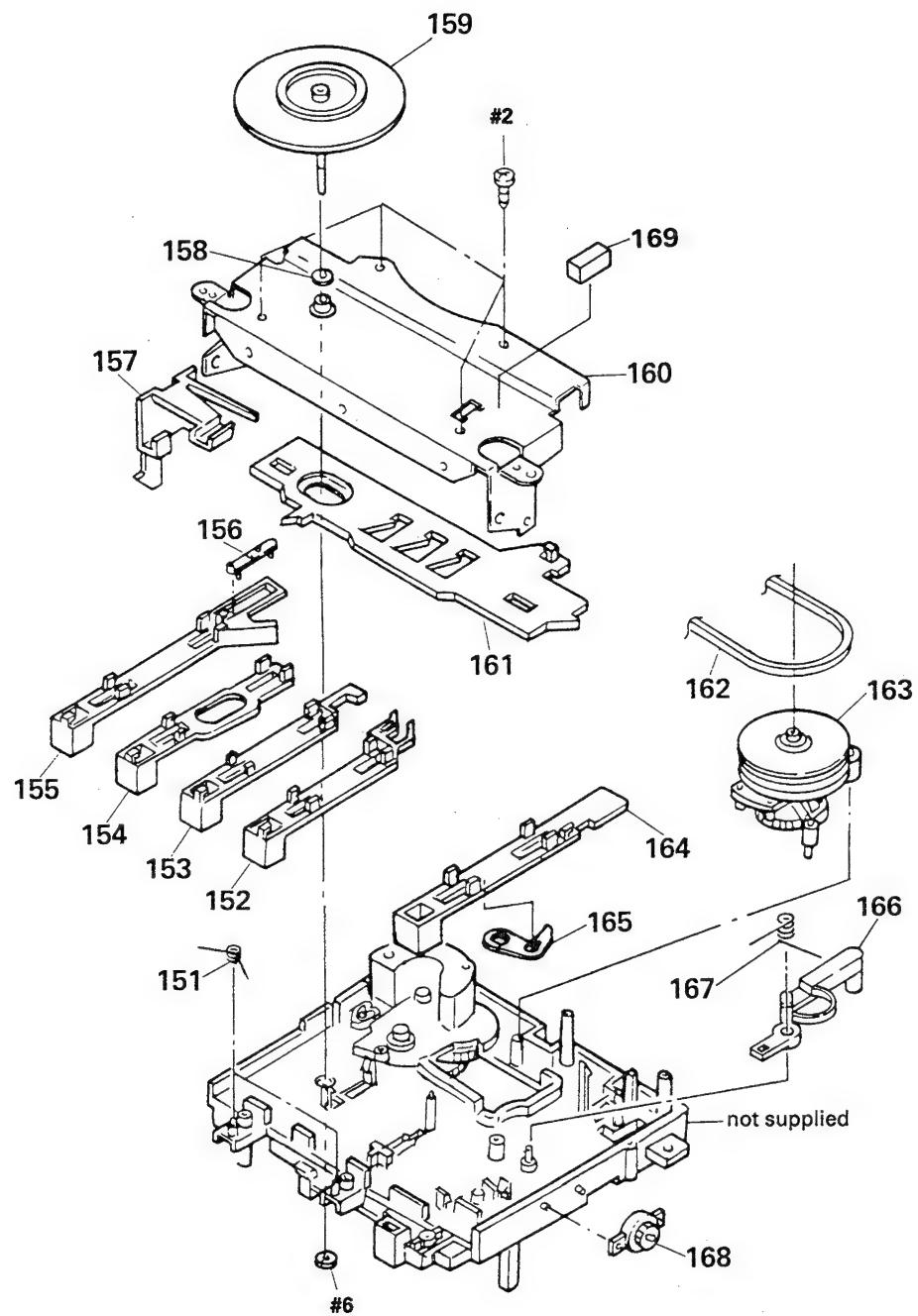
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	A-4325-346-A	LID (A) ASSY, CASSETTE		* 61	1-641-709-11	SW BOARD	
52	A-4325-347-A	LID (B) ASSY, CASSETTE		62	4-948-257-01	BUTTON (DDT)	
53	A-4323-382-A	KNOB (VOL) ASSY		* 63	1-641-706-11	VOL BOARD	
* 54	1-641-710-11	MIC BOARD		* 64	A-4345-919-A	PANEL BOARD, COMPLETE	
55	4-948-270-01	KNOB (DSB)		65	4-948-258-01	BUTTON (MD-A)	
56	4-948-236-01	CUSHION (107)		66	4-948-259-01	BUTTON (MD-B)	
57	A-4325-351-A	PANEL ASSY, FRONT		* 67	4-924-098-31	HOLDER, PC BOARD	
58	4-930-783-11	BUTTON (PO)		* 68	A-4345-914-A	TC MAIN BOARD, COMPLETE	
Δ 59	1-690-708-11	CORD (WITH CONNECTOR)		69	4-928-635-01	SCREW, +BV (2.6X8) TAPPING	
* 60	1-641-707-11	H. P. BOARD		70	4-928-635-21	SCREW, +BV (2.6X10) TAPPING	
				* 71	1-641-734-11	BUFFER AMP BOARD	
				Δ S1301	1-572-267-61	SWITCH, PUSH (AC POWER) (1 KEY)	

4-3. MECHANISM DECK SECTION-1
 (TCM-180VW-H7)



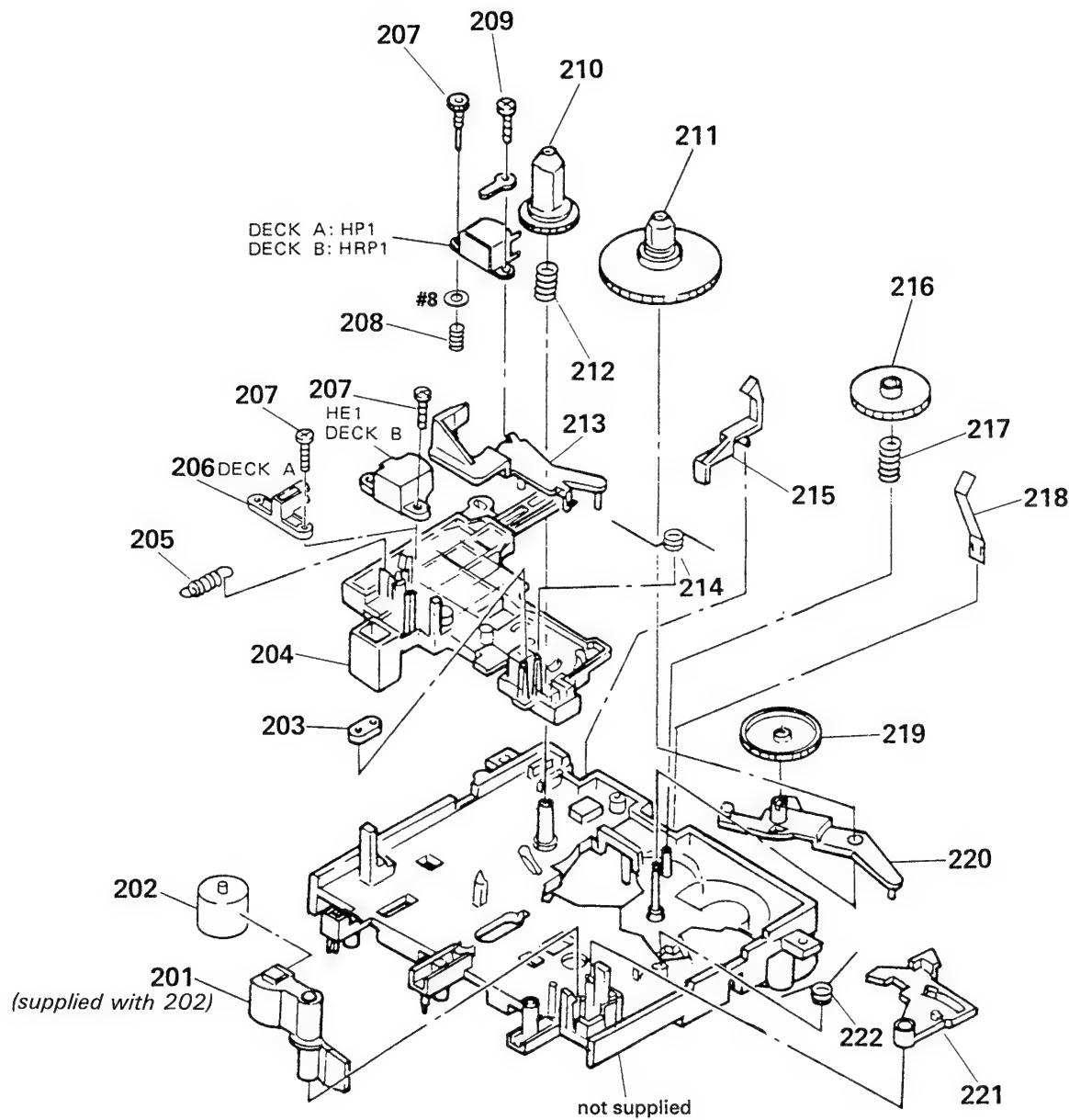
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	3-358-287-01	SPRING (LOADING A), TORSION		113	3-358-230-01	BELT (A1)	
102	3-358-229-01	SPRING (LOADING), TORSION		114	3-364-777-01	BELT (WH)	
103	3-358-209-01	SPRING (CASSETTE HOLDER), LEAF		* 115	1-640-703-11	LEAF SW (B) BOARD	
104	3-358-266-02	HOLDER, CASSETTE		116	4-928-635-01	SCREW +BV (2.6X8) TAPPING	
105	3-371-917-01	SHAFT (BUTTON SHAFT 4)		* CN415	1-568-942-11	PIN, CONNECTOR 4P	
106	3-369-335-01	LEVER (BUTTON BASE F)		* CN416	1-568-943-11	PIN, CONNECTOR 5P	
* 107	3-358-216-01	COLLAR (DECK A)		M1	X-3362-377-1	MOTOR (WH) ASSY	
* 108	1-640-702-11	LEAF SW (A) BOARD		S1	1-571-736-11	SWITCH, LEAF (MOTOR)	
* 109	3-358-289-01	SPACER (VIBRATION PROOF MAT)		S2	1-571-736-11	SWITCH, LEAF (FWD)	
110	3-358-203-01	LEVER (TRIGGER)		S3	1-571-736-11	SWITCH, LEAF (REC)	
111	3-358-202-01	SLIDER (TRIGGER)		S4	1-571-736-11	SWITCH, LEAF (MOTOR)	
* 112	3-363-930-01	BRACKET (JOINT BASE)		S5	1-571-736-11	SWITCH, LEAF (FWD)	

**4-4. MECHANISM DECK SECTION-2
(TCM-180VW-H7)**



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
151	3-358-232-01	SPRING (S-P F-R), TORSION		* 161	3-358-249-01	SLIDER (LOCK PLATE)	
152	3-358-258-01	SLIDER (REW)		162	3-358-230-01	BELT (A1)	
153	3-358-257-01	SLIDER (FF)		163	X-3358-202-1	LEVER (FR ARM) ASSY	
154	3-358-256-01	SLIDER (STOP/EJECT)		164	3-358-259-01	SLIDER (REC) (DECK B)	
155	3-358-260-01	SLIDER (PAUSE)		* 165	3-358-204-01	LEVER (REC SAFETY) (DECK B)	
* 156	3-358-226-01	LEVER (PAUSE LEVER)		166	3-358-286-01	LEVER (MOTOR LEVER)	
* 157	3-358-261-02	SLIDER (HOLDER LOCK)		167	3-358-214-01	SPRING (LOCK), TORSION (DECK A)	
158	3-701-437-01	WASHER		167	3-358-233-01	SPRING (REC-LOCK), TORSION (DECK B)	
159	X-3358-205-1	FLYWHEEL (A) ASSY (DECK A)		168	3-319-224-41	DAMPER, SMALL	
159	X-3358-206-1	FLYWHEEL (B) ASSY (DECK B)		* 169	3-358-289-01	SPACER (VIBRATION PROOF MAT)	
* 160	X-3358-208-1	BRACKET (B) ASSY					

4-5. MECHANISM DECK SECTION-3
(TCM-180VW-H7)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
201	X-3358-204-1	LEVER (PINCH LEVER) ASSY		214	3-358-228-01	SPRING, TORSION	
202	3-578-143-11	PINCH ROLLER		* 215	3-358-255-01	LEVER (GB LEVER)	
* 203	3-358-215-01	BUSHING (WIRE KIT RETAINER)		* 216	3-358-224-01	GEAR (FF GEAR)	
204	3-358-265-01	SLIDER (HEAD PC BOARD A)		217	3-358-207-01	SPRING (FF GEAR), COMPRESSION	
205	3-358-217-01	SPRING, TENSION		218	3-358-227-01	SPRING, LEAF	
* 206	3-363-931-01	GUIDE, TAPE (DECK A)		* 219	3-358-284-01	GEAR (TU GEAR)	
207	3-358-288-11	SCREW (T), AZIMUTH		* 220	3-358-252-01	LEVER (TU ARM)	
208	3-358-234-01	SPRING (AZIMUTH), COMPRESSION		* 221	3-358-253-01	LEVER (SHUT-OFF LEVER)	
209	3-358-288-01	SCREW (T), AZIMUTH		222	3-358-243-01	SPRING (TU-SHUT), TORSION	
210	3-358-248-01	GEAR (SUPPLY REEL)		HE1	1-543-673-11	HEAD, MAGNETIC (ERASE) (DECK B)	
211	X-3358-203-1	TABLE (T) ASSY, REEL		HP1	1-543-319-11	HEAD, MAGNETIC (PB) (DECK A)	
212	3-358-208-01	SPRING (SUPPLY), COMPRESSION		HRP1	1-543-319-11	HEAD, MAGNETIC (REC/PB) (DECK B)	
* 213	3-358-251-01	LEVER (TENSION DETECTION ARM)					

SECTION 5

ELECTRICAL PARTS LIST

BUFFER AMP**H.P.****LEAF SW (A)****LEAF SW (B)****MAIN**

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms.
METAL: Metal-film resistor.
METAL OXIDE: Metal oxide-film resistor.
F: nonflammable

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

● SEMICONDUCTORS

In each case, u: μ , for example:
uA .. : μ A.. uPA.. : μ PA..
uPB.. : μ PB.. uPC.. : μ PC.. uPD.. : μ PD..

● CAPACITORS

uF: μ F

● COILS

uH: μ H

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board.

AUS: Australian
MY: Malaysian

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	1-641-734-11	BUFFER AMP BOARD				< CONNECTOR >	

< CAPACITOR >							
C901	1-164-159-11	CERAMIC	0.1uF	50V			
C902	1-124-584-00	ELECT	100uF	20%	10V		
C903	1-124-257-00	ELECT	2.2uF	20%	50V		
C904	1-124-257-00	ELECT	2.2uF	20%	50V		
< CONNECTOR >							
* CN901	1-573-090-11	PIN, CONNECTOR (PC BOARD)	8P				
* CN902	1-573-090-11	PIN, CONNECTOR (PC BOARD)	8P				
< IC >							
IC901	8-759-634-50	IC	M5218AL				
< RESISTOR >							
R901	1-249-441-11	CARBON	100K	5%	1/4W		
R902	1-249-441-11	CARBON	100K	5%	1/4W		
R903	1-249-441-11	CARBON	100K	5%	1/4W		
R904	1-249-441-11	CARBON	100K	5%	1/4W		
R905	1-249-425-11	CARBON	4.7K	5%	1/4W		
R906	1-249-425-11	CARBON	4.7K	5%	1/4W		
R907	1-247-881-00	CARBON	120K	5%	1/4W		
R908	1-247-881-00	CARBON	120K	5%	1/4W		

*	1-641-707-11	H.P. BOARD					

< JACK >							
CNJ12011-691-003-11 JACK, LARGE TYPE							

*	1-640-702-11	LEAF SW (A) BOARD					

< CAPACITOR >							
C544	1-164-159-11	CERAMIC	0.1uF	50V			
< CONNECTOR >							
C302	1-124-477-11	ELECT	47uF	20%	25V		
C303	1-161-379-00	CERAMIC	0.01uF	20%	25V		
C307	1-161-379-00	CERAMIC	0.01uF	20%	25V		
C308	1-161-379-00	CERAMIC	0.01uF	20%	25V		
C309	1-161-379-00	CERAMIC	0.01uF	20%	25V		
C310	1-124-477-11	ELECT	47uF	20%	25V		
C311	1-161-379-00	CERAMIC	0.01uF	20%	25V		
C312	1-101-006-00	CERAMIC	0.047uF		50V		
C313	1-123-382-00	ELECT	3.3uF	20%	100V		

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
C314	1-161-379-00	CERAMIC	0.01uF	20%	25V	C1009	1-124-925-11	ELECT	2.2uF	20%	100V
C315	1-161-329-00	CERAMIC	0.0068uF	30%	16V	C1010	1-124-477-11	ELECT	47uF	20%	25V
C316	1-162-282-31	CERAMIC	100PF	10%	50V	C1012	1-124-925-11	ELECT	2.2uF	20%	100V
C318	1-124-903-11	ELECT	1uF	20%	50V	C1013	1-162-290-31	CERAMIC	470PF	10%	50V
C320	1-124-903-11	ELECT	1uF	20%	50V	C1014	1-161-494-00	CERAMIC	0.022uF		25V
C321	1-124-902-00	ELECT	0.47uF	20%	50V	C1025	1-162-286-31	CERAMIC	220PF	10%	50V
C322	1-124-463-00	ELECT	0.1uF	20%	50V	C1026	1-162-286-31	CERAMIC	220PF	10%	50V
C323	1-161-329-00	CERAMIC	0.0068uF	30%	16V	C1051	1-124-925-11	ELECT	2.2uF	20%	100V
C324	1-161-329-00	CERAMIC	0.0068uF	30%	16V	C1052	1-162-282-31	CERAMIC	100PF	10%	50V
C325	1-124-477-11	ELECT	47uF	20%	25V	C1053	1-162-282-31	CERAMIC	100PF	10%	50V
C326	1-124-907-11	ELECT	10uF	20%	50V	C1054	1-124-477-11	ELECT	47uF	20%	25V
C327	1-161-379-00	CERAMIC	0.01uF	20%	25V	C1055	1-161-377-00	CERAMIC	0.0047uF	20%	16V
C328	1-124-463-00	ELECT	0.1uF	20%	50V	C1056	1-161-374-11	CERAMIC	0.0015uF	20%	50V
C329	1-124-927-11	ELECT	4.7uF	20%	100V	C1057	1-124-464-11	ELECT	0.22uF	20%	50V
C330	1-161-379-00	CERAMIC	0.01uF	20%	25V	C1058	1-124-477-11	ELECT	47uF	20%	25V
C331	1-126-176-11	ELECT	220uF	20%	10V	C1059	1-124-925-11	ELECT	2.2uF	20%	100V
C332	1-161-379-00	CERAMIC	0.01uF	20%	25V	C1060	1-124-477-11	ELECT	47uF	20%	25V
C335	1-161-379-00	CERAMIC	0.01uF	20%	25V	C1062	1-124-925-11	ELECT	2.2uF	20%	100V
C336	1-161-379-00	CERAMIC	0.01uF	20%	25V	C1063	1-162-290-31	CERAMIC	470PF	10%	50V
C341	1-123-382-00	ELECT	3.3uF	20%	100V	C1064	1-161-494-00	CERAMIC	0.022uF		25V
C342	1-123-382-00	ELECT	3.3uF	20%	100V	C1075	1-162-286-31	CERAMIC	220PF	10%	50V
C343	1-123-382-00	ELECT	3.3uF	20%	100V	C1076	1-162-286-31	CERAMIC	220PF	10%	50V
C344	1-123-382-00	ELECT	3.3uF	20%	100V	C1212	1-126-233-11	ELECT	22uF	20%	50V
C345	1-161-375-00	CERAMIC	0.0022uF	20%	50V	C1213	1-126-233-11	ELECT	22uF	20%	50V
C346	1-161-375-00	CERAMIC	0.0022uF	20%	50V	C1221	1-126-101-11	ELECT	100uF	20%	16V
C361	1-164-098-11	CERAMIC	0.047uF		12V	C1222	1-126-176-11	ELECT	220uF	20%	10V
C362	1-161-494-00	CERAMIC	0.022uF		25V	C1223	1-126-176-11	ELECT	220uF	20%	10V
C371	1-162-199-31	CERAMIC	10PF	5%	50V	C1262	1-126-233-11	ELECT	22uF	20%	50V
C501	1-102-961-00	CERAMIC	27PF	5%	50V	C1263	1-126-233-11	ELECT	22uF	20%	50V
C502	1-102-961-00	CERAMIC	27PF	5%	50V	C1302	1-102-394-11	CERAMIC	0.01uF		250V
C503	1-124-477-11	ELECT	47uF	20%	25V	C1304	1-126-413-11	ELECT	3300uF	20%	35V
C504	1-161-379-00	CERAMIC	0.01uF	20%	25V	C1305	1-126-413-11	ELECT	3300uF	20%	35V
C505	1-161-379-00	CERAMIC	0.01uF	20%	25V	C1306	1-124-477-11	ELECT	47uF	20%	25V
C506	1-161-379-00	CERAMIC	0.01uF	20%	25V	C1308	1-126-101-11	ELECT	100uF	20%	16V
C507	1-161-379-00	CERAMIC	0.01uF	20%	25V	C1309	1-126-101-11	ELECT	100uF	20%	16V
C521	1-124-925-11	ELECT	2.2uF	20%	100V	C1312	1-124-563-11	ELECT	2200uF	20%	25V
C522	1-124-463-00	ELECT	0.1uF	20%	50V	C1313	1-124-563-11	ELECT	2200uF	20%	25V
C523	1-161-379-00	CERAMIC	0.01uF	20%	25V	C1319	1-124-463-00	ELECT	0.1uF	20%	50V
C524	1-161-379-00	CERAMIC	0.01uF	20%	25V	C1320	1-124-907-11	ELECT	10uF	20%	50V
C525	1-124-477-11	ELECT	47uF	20%	25V	C1321	1-161-379-00	CERAMIC	0.01uF	20%	25V
C1001	1-124-925-11	ELECT	2.2uF	20%	100V	C1322	1-161-379-00	CERAMIC	0.01uF	20%	25V
C1002	1-162-282-31	CERAMIC	100PF	10%	50V	C1324	1-124-907-11	ELECT	10uF	20%	50V
C1003	1-162-282-31	CERAMIC	100PF	10%	50V	C1326	1-124-907-11	ELECT	10uF	20%	50V
C1004	1-124-477-11	ELECT	47uF	20%	25V	C1330	1-126-101-11	ELECT	100uF	20%	16V
C1005	1-161-377-00	CERAMIC	0.0047uF	20%	16V	C1331	1-102-394-11	CERAMIC	0.01uF		250V
C1006	1-161-374-11	CERAMIC	0.0015uF	20%	50V	C1335	1-124-907-11	ELECT	10uF	20%	50V (E2, AUS)
C1007	1-124-464-11	ELECT	0.22uF	20%	50V	C1336	1-126-101-11	ELECT	100uF	20%	16V (E2, AUS)
C1008	1-124-477-11	ELECT	47uF	20%	25V	C1341	1-124-907-11	ELECT	10uF	20%	50V

MAIN

Ref. No.	Part No.	Description	Remark		
C1346	1-124-925-11	ELECT	2.2uF	20%	100V
C1351	1-124-122-11	ELECT	100uF	20%	50V
C1352	1-126-105-11	ELECT	1000uF	20%	35V
C1353	1-136-165-00	FILM	0.1uF	5%	50V
C1354	1-136-165-00	FILM	0.1uF	5%	50V
C1361	1-124-122-11	ELECT	100uF	20%	50V

< FILTER >

CF301 1-577-070-81 FILTER, CERAMIC
 CF303 1-577-070-81 FILTER, CERAMIC
 CF304 1-577-075-11 OSCILLATOR, CERAMIC

< CONNECTOR >

* CN501 1-568-830-11 SOCKET, CONNECTOR 11P
 * CN1001 1-580-912-11 JACK, PIN 4P
 * CN1002 1-580-691-11 JACK, PIN 2P
 * CN1006 1-568-955-11 PIN, CONNECTOR 6P
 * CN1201 1-537-327-11 TERMINAL BOARD
 CN1202 1-569-130-11 JACK, PIN 2P
 * CN1203 1-564-506-11 PLUG, CONNECTOR 3P
 * CN1204 1-564-510-11 PLUG, CONNECTOR 7P
 * CN1205 1-568-934-11 PIN, CONNECTOR 7P
 CN1206 1-568-802-11 SOCKET, CONNECTOR 19P
 * CN1211 1-564-506-11 PLUG, CONNECTOR 3P
 * CN1212 1-564-508-11 PLUG, CONNECTOR 5P
 * CN1301 1-566-210-11 PIN, CONNECTOR 3P (E2, AUS)

< DIODE >

D1202 8-719-987-63 DIODE 1N4148M
 D1203 8-719-987-63 DIODE 1N4148M
 D1204 8-719-987-63 DIODE 1N4148M
 D1302 8-719-312-09 DIODE RBA-402
 D1303 8-719-200-82 DIODE 11ES2
 D1304 8-719-200-82 DIODE 11ES2
 D1305 8-719-200-82 DIODE 11ES2
 D1306 8-719-200-82 DIODE 11ES2
 D1318 8-719-200-82 DIODE 11ES2
 D1319 8-719-200-82 DIODE 11ES2
 D1321 8-719-987-63 DIODE 1N4148M
 D1323 8-719-987-63 DIODE 1N4148M
 D1324 8-719-987-63 DIODE 1N4148M
 D1341 8-719-001-76 DIODE UZL-12M3
 D1368 8-719-200-82 DIODE 11ES2

D1369 8-719-200-82 DIODE 11ES2

< FRONTEND >

FE301 1-465-006-11 FRONT END (FM) (2 GANG)
 FE352 1-236-461-11 ENCAPSULATED COMPONENT

Ref. No.	Part No.	Description	Remark		
			< IC >		
IC301	8-759-821-45	IC	LA1851N		
IC501	8-759-820-91	IC	LC7218		
IC1001	8-759-634-51	IC	M5218AP		
IC1002	8-759-000-48	IC	MC14052BCP		
IC1003	8-759-634-51	IC	M5218AP		
IC1004	8-759-000-49	IC	MC14066BCP		
IC1202	8-759-111-88	IC	uPC1237HA		
IC1303	8-759-604-86	IC	M5F7807L		
IC1304	8-759-604-90	IC	M5F7907L		
IC1305	8-759-820-13	IC	L78MR06		
IC1306	8-759-231-58	IC	TA7812S (E2, AUS)		
			< IFT >		
			IFT301 1-404-713-11 TRANSFORMER, IF		
			< COIL >		
L301	1-410-686-11	INDUCTOR		1mH	
			< FILTER >		
			LPF301 1-235-164-00 FILTER, LOW PASS		
			LPF302 1-235-164-00 FILTER, LOW PASS		
			< TRANSISTOR >		
Q303	8-729-231-00	TRANSISTOR	2SC2669-0Y		
Q304	8-729-231-00	TRANSISTOR	2SC2669-0Y		
Q305	8-729-900-80	TRANSISTOR	DTC114ES		
Q306	8-729-900-61	TRANSISTOR	DTA114ES		
Q307	8-729-900-80	TRANSISTOR	DTC114ES		
Q308	8-729-119-78	TRANSISTOR	2SC2785-HFE		
Q309	8-729-119-78	TRANSISTOR	2SC2785-HFE		
Q501	8-729-900-80	TRANSISTOR	DTC114ES		
Q502	8-729-900-61	TRANSISTOR	DTA114ES		
Q521	8-729-202-67	TRANSISTOR	2SK246-GR3		
Q522	8-729-201-84	TRANSISTOR	2SC3112-B		
Q1001	8-729-119-76	TRANSISTOR	2SA1175-HFE		
Q1002	8-729-900-36	TRANSISTOR	DTC124ES		
Q1204	8-729-900-63	TRANSISTOR	DTA124ES		
Q1302	8-729-209-15	TRANSISTOR	2SD2012		
			< RESISTOR >		
R301	1-249-401-11	CARBON	47	5%	1/4W
R302	1-249-413-11	CARBON	470	5%	1/4W
R308	1-249-411-11	CARBON	330	5%	1/4W
R309	1-249-432-11	CARBON	18K	5%	1/4W
R310	1-249-411-11	CARBON	330	5%	1/4W
R311	1-249-434-11	CARBON	27K	5%	1/4W

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R312	1-249-414-11	CARBON	560 5% 1/4W	R1002	1-249-441-11	CARBON	100K 5% 1/4W
R313	1-249-405-11	CARBON	100 5% 1/4W	R1003	1-249-416-11	CARBON	820 5% 1/4W
R315	1-249-404-00	CARBON	82 5% 1/4W	R1004	1-247-897-11	CARBON	560K 5% 1/4W
R316	1-249-429-11	CARBON	10K 5% 1/4W	R1005	1-249-437-11	CARBON	47K 5% 1/4W
R317	1-249-417-11	CARBON	1K 5% 1/4W	R1006	1-249-409-11	CARBON	220 5% 1/4W
R318	1-249-435-11	CARBON	33K 5% 1/4W	R1007	1-249-441-11	CARBON	100K 5% 1/4W
R319	1-249-428-11	CARBON	8. 2K 5% 1/4W	R1008	1-249-409-11	CARBON	220 5% 1/4W
R320	1-249-432-11	CARBON	18K 5% 1/4W	R1010	1-249-422-11	CARBON	2. 7K 5% 1/4W
R321	1-249-423-11	CARBON	3. 3K 5% 1/4W	R1011	1-249-428-11	CARBON	8. 2K 5% 1/4W
R322	1-249-429-11	CARBON	10K 5% 1/4W	R1012	1-249-417-11	CARBON	1K 5% 1/4W
R323	1-249-418-11	CARBON	1. 2K 5% 1/4W	R1013	1-249-441-11	CARBON	100K 5% 1/4W
R324	1-249-429-11	CARBON	10K 5% 1/4W	R1014	1-249-437-11	CARBON	47K 5% 1/4W
R325	1-249-429-11	CARBON	10K 5% 1/4W	R1015	1-249-437-11	CARBON	47K 5% 1/4W
R326	1-249-409-11	CARBON	220 5% 1/4W	R1016	1-249-421-11	CARBON	2. 2K 5% 1/4W
R327	1-249-437-11	CARBON	47K 5% 1/4W	R1017	1-249-421-11	CARBON	2. 2K 5% 1/4W
R328	1-249-437-11	CARBON	47K 5% 1/4W	R1018	1-249-433-11	CARBON	22K 5% 1/4W
R331	1-247-891-00	CARBON	330K 5% 1/4W	R1019	1-249-433-11	CARBON	22K 5% 1/4W
R332	1-247-891-00	CARBON	330K 5% 1/4W	R1021	1-249-434-11	CARBON	27K 5% 1/4W
R333	1-249-421-11	CARBON	2. 2K 5% 1/4W	R1022	1-249-432-11	CARBON	18K 5% 1/4W
R334	1-249-421-11	CARBON	2. 2K 5% 1/4W	R1023	1-249-434-11	CARBON	27K 5% 1/4W
R335	1-249-420-11	CARBON	1. 8K 5% 1/4W	R1024	1-249-417-11	CARBON	1K 5% 1/4W
R336	1-249-420-11	CARBON	1. 8K 5% 1/4W	R1026	1-249-433-11	CARBON	22K 5% 1/4W
R337	1-249-426-11	CARBON	5. 6K 5% 1/4W	R1029	1-249-433-11	CARBON	22K 5% 1/4W
R338	1-249-426-11	CARBON	5. 6K 5% 1/4W	R1037	1-249-421-11	CARBON	2. 2K 5% 1/4W
R361	1-249-437-11	CARBON	47K 5% 1/4W	R1051	1-249-417-11	CARBON	1K 5% 1/4W
R362	1-249-437-11	CARBON	47K 5% 1/4W	R1052	1-249-441-11	CARBON	100K 5% 1/4W
R501	1-249-417-11	CARBON	1K 5% 1/4W	R1053	1-249-416-11	CARBON	820 5% 1/4W
R502	1-249-417-11	CARBON	1K 5% 1/4W	R1054	1-247-897-11	CARBON	560K 5% 1/4W
R503	1-249-417-11	CARBON	1K 5% 1/4W	R1055	1-249-437-11	CARBON	47K 5% 1/4W
R504	1-249-417-11	CARBON	1K 5% 1/4W	R1056	1-249-409-11	CARBON	220 5% 1/4W
R505	1-249-429-11	CARBON	10K 5% 1/4W	R1057	1-249-441-11	CARBON	100K 5% 1/4W
R506	1-249-417-11	CARBON	1K 5% 1/4W	R1058	1-249-409-11	CARBON	220 5% 1/4W
R510	1-249-401-11	CARBON	47 5% 1/4W	R1060	1-249-422-11	CARBON	2. 7K 5% 1/4W
R511	1-249-429-11	CARBON	10K 5% 1/4W	R1061	1-249-428-11	CARBON	8. 2K 5% 1/4W
R512	1-249-425-11	CARBON	4. 7K 5% 1/4W	R1062	1-249-417-11	CARBON	1K 5% 1/4W
R513	1-249-417-11	CARBON	1K 5% 1/4W	R1063	1-249-441-11	CARBON	100K 5% 1/4W
R514	1-249-429-11	CARBON	10K 5% 1/4W	R1071	1-249-434-11	CARBON	27K 5% 1/4W
R515	1-249-417-11	CARBON	1K 5% 1/4W	R1072	1-249-432-11	CARBON	18K 5% 1/4W
R521	1-249-423-11	CARBON	3. 3K 5% 1/4W	R1073	1-249-434-11	CARBON	27K 5% 1/4W
R522	1-249-425-11	CARBON	4. 7K 5% 1/4W	R1074	1-249-417-11	CARBON	1K 5% 1/4W
R523	1-249-414-11	CARBON	560 5% 1/4W	R1095	1-249-433-11	CARBON	22K 5% 1/4W
R524	1-249-417-11	CARBON	1K 5% 1/4W	R1222	1-249-415-11	CARBON	680 5% 1/4W
R525	1-249-410-11	CARBON	270 5% 1/4W	R1223	1-249-415-11	CARBON	680 5% 1/4W
R526	1-249-421-11	CARBON	2. 2K 5% 1/4W	△R1226	1-215-889-00	METAL OXIDE	330 5% 2W F
R527	1-249-425-11	CARBON	4. 7K 5% 1/4W	R1233	1-249-432-11	CARBON	18K 5% 1/4W
R528	1-249-425-11	CARBON	4. 7K 5% 1/4W	R1234	1-249-432-11	CARBON	18K 5% 1/4W
R529	1-249-405-11	CARBON	100 5% 1/4W	R1235	1-249-435-11	CARBON	33K 5% 1/4W
R530	1-249-405-11	CARBON	100 5% 1/4W	R1236	1-249-441-11	CARBON	100K 5% 1/4W
R1001	1-249-417-11	CARBON	1K 5% 1/4W	R1237	1-249-429-11	CARBON	10K 5% 1/4W

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

MAIN MIC PANEL

Ref. No.	Part No.	Description	Remark		
R1240	1-249-438-11	CARBON	56K	5%	1/4W
R1272	1-249-415-11	CARBON	680	5%	1/4W
R1273	1-249-415-11	CARBON	680	5%	1/4W
R1290	1-249-437-11	CARBON	47K	5%	1/4W
R1301	1-249-429-11	CARBON	10K	5%	1/4W
R1302	1-249-429-11	CARBON	10K	5%	1/4W
R1321	1-249-417-11	CARBON	1K	5%	1/4W
R1322	1-249-429-11	CARBON	10K	5%	1/4W
R1345	1-249-421-11	CARBON	2. 2K	5%	1/4W
R1346	1-249-425-11	CARBON	4. 7K	5%	1/4W (E2, AUS)
< VARIABLE RESISTOR >					
RV301	1-238-601-11	RES, ADJ, CARBON	22K		
RV302	1-238-601-11	RES, ADJ, CARBON	22K		
< RELAY >					
RY1201	1-515-533-11	RELAY			
< TRANSFORMER >					
T301	1-404-807-11	TRANSFORMER, DISCRIMINATOR			
< TERMINAL >					
* TM301	1-537-264-11	TERMINAL BOARD			
< TEST PIN >					
* TP1	1-560-060-00	PIN, CONNECTOR 2P			
< VIBRATOR >					
XT501	1-577-126-11	VIBRATOR, CRYSTAL (7. 5MHz)			
XT501	1-579-383-11	VIBRATOR, CRYSTAL			

* 1-641-710-11	MIC BOARD				

< JACK >					
* J1001	1-691-002-21	JACK, LARGE TYPE			
< CAPACITOR >					
C1037	1-124-925-11	ELECT	2. 2uF	20%	100V
C1038	1-162-294-31	CERAMIC	0. 001uF	10%	50V
C1039	1-162-215-31	CERAMIC	47PF	5%	50V
C1040	1-162-282-31	CERAMIC	100PF	10%	50V
C1041	1-124-463-00	ELECT	0. 1uF	20%	50V
C1043	1-162-282-31	CERAMIC	100PF	10%	50V
C1044	1-162-215-31	CERAMIC	47PF	5%	50V
C1045	1-124-925-11	ELECT	2. 2uF	20%	100V

Ref. No.	Part No.	Description	Remark		
C1046	1-124-477-11	ELECT	47uF	20%	25V
C1047	1-124-477-11	ELECT	47uF	20%	25V
< IC >					
IC1005	8-759-634-51	IC M5218AP			
< RESISTOR >					
R1039	1-249-417-11	CARBON	1K	5%	1/4W
R1040	1-249-429-11	CARBON	10K	5%	1/4W
R1041	1-249-412-11	CARBON	390	5%	1/4W
R1042	1-249-434-11	CARBON	27K	5%	1/4W
R1043	1-249-433-11	CARBON	22K	5%	1/4W
R1045	1-249-437-11	CARBON	47K	5%	1/4W

*	A-4345-919-A	PANEL BOARD, COMPLETE			

*	4-930-781-11	HOLDER (VO), LED			
*	4-942-301-01	HOLDER, FL TUBE			
*	4-948-247-01	HOLDER (FU), LED			
*	4-949-935-01	CUSHION (FL)			
< CAPACITOR >					
C603	1-136-169-00	FILM	0. 22uF	5%	50V
C604	1-164-159-11	CERAMIC	0. 1uF		50V
C605	1-125-486-11	DOUBLE LAYERS	0. 22F		5. 5V
C606	1-164-159-11	CERAMIC	0. 1uF		50V
C607	1-124-907-11	ELECT	10uF	20%	50V
C608	1-161-379-00	CERAMIC	0. 01uF	20%	25V
C609	1-161-379-00	CERAMIC	0. 01uF	20%	25V
C650	1-124-907-11	ELECT	10uF	20%	50V
C1101	1-124-257-00	ELECT	2. 2uF	20%	50V
C1102	1-124-589-11	ELECT	47uF	20%	16V
C1103	1-162-282-31	CERAMIC	100PF	10%	50V
C1104	1-124-257-00	ELECT	2. 2uF	20%	50V
C1105	1-124-464-11	ELECT	0. 22uF	20%	50V
C1106	1-136-161-00	FILM	0. 047uF	5%	50V
C1107	1-136-155-00	FILM	0. 015uF	5%	50V
C1108	1-136-155-00	FILM	0. 015uF	5%	50V
C1109	1-130-480-00	MYLAR	0. 0056uF	5%	50V
C1110	1-161-327-00	CERAMIC	0. 0033uF	20%	16V
C1111	1-136-155-00	FILM	0. 015uF	5%	50V
C1112	1-136-157-00	FILM	0. 022uF	5%	50V
C1113	1-136-153-00	FILM	0. 01uF	5%	50V
C1114	1-161-377-00	CERAMIC	0. 0047uF	20%	16V
C1115	1-124-257-00	ELECT	2. 2uF	20%	50V
C1121	1-161-379-00	CERAMIC	0. 01uF	20%	25V
C1123	1-162-286-31	CERAMIC	220PF	10%	50V

PANEL

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
C1131	1-162-215-31	CERAMIC	47PF	5%	50V			< FILTER >			
C1132	1-162-215-31	CERAMIC	47PF	5%	50V			FL601	1-519-711-11	INDICATOR TUBE, FLUORESCENT	
C1151	1-124-257-00	ELECT	2. 2uF	20%	50V						
C1152	1-124-589-11	ELECT	47uF	20%	16V			< IC >			
C1153	1-162-282-31	CERAMIC	100PF	10%	50V						
C1154	1-124-257-00	ELECT	2. 2uF	20%	50V			IC601	8-759-053-97	IC uPD75212ACW-A21	
C1155	1-124-464-11	ELECT	0. 22uF	20%	50V			IC602	8-749-920-83	IC GP1U52XB	
C1156	1-136-161-00	FILM	0. 047uF	5%	50V			IC1101	8-759-634-51	IC M5218AP	
C1157	1-136-155-00	FILM	0. 015uF	5%	50V			IC1102	8-759-634-51	IC M5218AP	
C1158	1-136-155-00	FILM	0. 015uF	5%	50V			IC1103	8-759-820-62	IC LB1639	
C1159	1-130-480-00	MYLAR	0. 0056uF	5%	50V			IC1104	8-759-916-12	IC TC74HC00P	
C1160	1-161-327-00	CERAMIC	0. 0033uF	20%	16V						
C1161	1-136-155-00	FILM	0. 015uF	5%	50V			< COIL >			
C1162	1-136-157-00	FILM	0. 022uF	5%	50V			L601	1-410-521-11	INDUCTOR	100uH
C1163	1-136-153-00	FILM	0. 01uF	5%	50V						
C1164	1-161-377-00	CERAMIC	0. 0047uF	20%	16V			< TRANSISTOR >			
C1165	1-124-257-00	ELECT	2. 2uF	20%	50V			Q601	8-729-119-78	TRANSISTOR	2SC2785-HFE
C1173	1-162-286-31	CERAMIC	220PF	10%	50V			Q602	8-729-900-80	TRANSISTOR	DTC114ES
C1181	1-162-215-31	CERAMIC	47PF	5%	50V			Q1101	8-729-119-78	TRANSISTOR	2SC2785-HFE
C1182	1-162-215-31	CERAMIC	47PF	5%	50V			Q1102	8-729-141-26	TRANSISTOR	2SC3622A-LK
C1197	1-161-379-00	CERAMIC	0. 01uF	20%	25V			Q1121	8-729-900-36	TRANSISTOR	DTC124ES
< CONNECTOR >											
* CN601	1-568-830-11	SOCKET, CONNECTOR 11P						Q1122	8-729-119-76	TRANSISTOR	2SA1175-HFE
CN1101	1-568-802-11	SOCKET, CONNECTOR 19P						Q1136	8-729-900-36	TRANSISTOR	DTC124ES
< DIODE >											
D601	8-719-987-63	DIODE	1N4148M					Q1138	8-729-900-36	TRANSISTOR	DTC124ES
D602	8-719-010-26	DIODE	UZ-3. 9BSB					Q1141	8-729-900-63	TRANSISTOR	DTA124ES
D603	8-719-987-63	DIODE	1N4148M					Q1143	8-729-900-80	TRANSISTOR	DTC114ES
D604	8-719-987-63	DIODE	1N4148M								
D611	8-719-987-63	DIODE	1N4148M					Q1144	8-729-900-80	TRANSISTOR	DTC114ES
D612	8-719-987-63	DIODE	1N4148M					Q1145	8-729-900-61	TRANSISTOR	DTA114ES
D613	8-719-987-63	DIODE	1N4148M					Q1151	8-729-119-78	TRANSISTOR	2SC2785-HFE
D614	8-719-987-63	DIODE	1N4148M					Q1152	8-729-141-26	TRANSISTOR	2SC3622A-LK
D618	8-719-987-63	DIODE	1N4148M								
D622	8-719-987-63	DIODE	1N4148M								
D625	8-719-987-63	DIODE	1N4148M								
D641	8-719-200-82	DIODE	11ES2								
D1130	8-719-302-45	LED	SEL1210S (VIDEO)								
D1131	8-719-302-45	LED	SEL1210S (CD)								
D1132	8-719-302-45	LED	SEL1210S (PHONO)								
D1133	8-719-302-45	LED	SEL1210S (TUNER)								
D1134	8-719-302-45	LED	SEL1210S (TAPE)								
D1145	8-719-301-39	LED	SEL2210S-D (VOLUME)								
D1151	8-719-987-63	DIODE	1N4148M								
D1152	8-719-987-63	DIODE	1N4148M								
D1153	8-719-987-63	DIODE	1N4148M								

PANEL **POWER AMP**

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R641	1-249-417-11	CARBON	1K 5% 1/4W	R1168	1-249-425-11	CARBON	4.7K 5% 1/4W
R1101	1-249-441-11	CARBON	100K 5% 1/4W	R1169	1-249-425-11	CARBON	4.7K 5% 1/4W
R1102	1-249-417-11	CARBON	1K 5% 1/4W	R1170	1-249-423-11	CARBON	3.3K 5% 1/4W
R1103	1-249-431-11	CARBON	15K 5% 1/4W	R1171	1-249-423-11	CARBON	3.3K 5% 1/4W
R1104	1-249-441-11	CARBON	100K 5% 1/4W	R1172	1-247-887-00	CARBON	220K 5% 1/4W
R1105	1-249-433-11	CARBON	22K 5% 1/4W	R1173	1-249-421-11	CARBON	2.2K 5% 1/4W
R1106	1-249-424-11	CARBON	3.9K 5% 1/4W	R1174	1-249-425-11	CARBON	4.7K 5% 1/4W
R1107	1-249-441-11	CARBON	100K 5% 1/4W	< VARIABLE RESISTOR >			
R1108	1-249-427-11	CARBON	6.8K 5% 1/4W	RV1101	1-241-353-11	RES, VAR, CARBON	100K/100K (SURROUND)
R1109	1-249-412-11	CARBON	390 5% 1/4W	RV1102	1-241-353-11	RES, VAR, CARBON	100K/100K (DBFB)
R1110	1-249-431-11	CARBON	15K 5% 1/4W	RV1103	1-241-351-11	RES, VAR, SLIDE	100K/100K (100Hz)
R1111	1-249-439-11	CARBON	68K 5% 1/4W	RV1104	1-241-351-11	RES, VAR, SLIDE	100K/100K (330Hz)
R1112	1-249-433-11	CARBON	22K 5% 1/4W	RV1105	1-241-351-11	RES, VAR, SLIDE	100K/100K (1kHz)
R1113	1-249-431-11	CARBON	15K 5% 1/4W	RV1106	1-241-351-11	RES, VAR, SLIDE	100K/100K (3.3kHz)
R1114	1-249-429-11	CARBON	10K 5% 1/4W	RV1107	1-241-351-11	RES, VAR, SLIDE	100K/100K (10kHz)
R1115	1-249-429-11	CARBON	10K 5% 1/4W	RV1108	1-241-352-11	RES, VAR, CARBON	100K/100K (BALANCE)
R1116	1-247-852-11	CARBON	7.5K 5% 1/4W	< SWITCH >			
R1117	1-247-852-11	CARBON	7.5K 5% 1/4W	S601	1-554-303-21	SWITCH, TACTILE (1)	
R1118	1-249-425-11	CARBON	4.7K 5% 1/4W	S602	1-554-303-21	SWITCH, TACTILE (2)	
R1119	1-249-425-11	CARBON	4.7K 5% 1/4W	S603	1-554-303-21	SWITCH, TACTILE (3)	
R1120	1-249-423-11	CARBON	3.3K 5% 1/4W	S604	1-554-303-21	SWITCH, TACTILE (4)	
R1121	1-249-423-11	CARBON	3.3K 5% 1/4W	S605	1-554-303-21	SWITCH, TACTILE (5)	
R1122	1-247-887-00	CARBON	220K 5% 1/4W	S606	1-554-303-21	SWITCH, TACTILE (6)	
R1123	1-249-421-11	CARBON	2.2K 5% 1/4W	S607	1-554-303-21	SWITCH, TACTILE (7)	
R1124	1-249-425-11	CARBON	4.7K 5% 1/4W	S608	1-554-303-21	SWITCH, TACTILE (8)	
R1125	1-249-433-11	CARBON	22K 5% 1/4W	S609	1-554-303-21	SWITCH, TACTILE (9)	
R1126	1-249-412-11	CARBON	390 5% 1/4W	S610	1-554-303-21	SWITCH, TACTILE (0)	
R1127	1-249-412-11	CARBON	390 5% 1/4W	S611	1-554-303-21	SWITCH, TACTILE (SHIFT)	
R1128	1-249-433-11	CARBON	22K 5% 1/4W	S612	1-554-303-21	SWITCH, TACTILE (BAND SELECT)	
R1129	1-249-412-11	CARBON	390 5% 1/4W	S613	1-554-303-21	SWITCH, TACTILE (ST/MUTE)	
R1130	1-249-412-11	CARBON	390 5% 1/4W	S614	1-554-303-21	SWITCH, TACTILE (DUAL MODE TUNING +)	
R1131	1-249-412-11	CARBON	390 5% 1/4W	S615	1-554-303-21	SWITCH, TACTILE (DUAL MODE TUNING -)	
R1132	1-249-429-11	CARBON	10K 5% 1/4W	S616	1-554-303-21	SWITCH, TACTILE (MEMORY)	
R1133	1-249-441-11	CARBON	100K 5% 1/4W	S617	1-554-303-21	SWITCH, TACTILE (TAPE)	
R1134	1-249-417-11	CARBON	1K 5% 1/4W	S618	1-554-303-21	SWITCH, TACTILE (CD)	
R1135	1-249-433-11	CARBON	22K 5% 1/4W	S619	1-554-303-21	SWITCH, TACTILE (TUNER)	
R1136	1-249-433-11	CARBON	22K 5% 1/4W	S620	1-554-303-21	SWITCH, TACTILE (PHONO)	
R1137	1-249-441-11	CARBON	100K 5% 1/4W	S621	1-554-303-21	SWITCH, TACTILE (VIDEO)	
R1138	1-249-427-11	CARBON	6.8K 5% 1/4W	< VIBRATOR >			
R1139	1-249-412-11	CARBON	390 5% 1/4W	X601	1-567-775-11	VIBRATOR, CERAMIC (4.19MHz)	*****
R1140	1-249-431-11	CARBON	15K 5% 1/4W	*****			
R1141	1-249-439-11	CARBON	68K 5% 1/4W	* A-4345-918-A POWER AMP BOARD, COMPLETE	*****		
R1142	1-249-433-11	CARBON	22K 5% 1/4W		*****		
R1143	1-249-431-11	CARBON	15K 5% 1/4W		*****		
R1144	1-249-429-11	CARBON	10K 5% 1/4W		*****		
R1145	1-249-429-11	CARBON	10K 5% 1/4W		*****		
R1146	1-249-441-11	CARBON	100K 5% 1/4W		*****		
R1147	1-247-852-11	CARBON	7.5K 5% 1/4W		*****		

POWER AMP

POWER

Ref. No.	Part No.	Description	Remark		
< CAPACITOR >					
C1201	1-124-257-00	ELECT	2.2uF	20%	50V
C1202	1-162-286-31	CERAMIC	220PF	10%	50V
C1203	1-162-286-31	CERAMIC	220PF	10%	50V
C1204	1-124-477-11	ELECT	47uF	20%	25V
C1205	1-124-910-11	ELECT	47uF	20%	50V
C1206	1-124-122-11	ELECT	100uF	20%	50V
C1207	1-136-165-00	FILM	0.1uF	5%	50V
C1208	1-126-233-11	ELECT	22uF	20%	50V
C1209	1-136-165-00	FILM	0.1uF	5%	50V
C1210	1-136-163-00	FILM	0.068uF	5%	50V
C1211	1-136-163-00	FILM	0.068uF	5%	50V
C1220	1-124-910-11	ELECT	47uF	20%	50V
C1251	1-124-257-00	ELECT	2.2uF	20%	50V
C1252	1-162-286-31	CERAMIC	220PF	10%	50V
C1253	1-162-286-31	CERAMIC	220PF	10%	50V
C1254	1-124-477-11	ELECT	47uF	20%	25V
C1255	1-124-910-11	ELECT	47uF	20%	50V
C1256	1-124-122-11	ELECT	100uF	20%	50V
C1257	1-136-165-00	FILM	0.1uF	5%	50V
C1260	1-136-163-00	FILM	0.068uF	5%	50V
C1261	1-136-163-00	FILM	0.068uF	5%	50V
< DIODE >					
D1201	8-719-987-63	DIODE	1N4148M		
D1251	8-719-987-63	DIODE	1N4148M		
< IC >					
IC1201	8-749-900-96	IC	STK-4142MK2		
< COIL >					
L1201	1-420-872-00	COIL, AIR CORE			
L1251	1-420-872-00	COIL, AIR CORE			
< TRANSISTOR >					
Q1201	8-729-140-84	TRANSISTOR	2SC1841-PAFAEA		
Q1202	8-729-900-80	TRANSISTOR	DTC114ES		
Q1203	8-729-119-78	TRANSISTOR	2SC2785-HFE		
Q1251	8-729-140-84	TRANSISTOR	2SC1841-PAFAEA		
< RESISTOR >					
R1201	1-249-417-11	CARBON	1K	5%	1/4W
R1202	1-249-438-11	CARBON	56K	5%	1/4W
R1203	1-249-417-11	CARBON	1K	5%	1/4W
R1204	1-249-438-11	CARBON	56K	5%	1/4W
R1205	1-249-425-11	CARBON	4.7K	5%	1/4W
R1206	1-249-425-11	CARBON	4.7K	5%	1/4W

Ref. No.	Part No.	Description	Remark		
R1207	1-249-425-11	CARBON	4.7K	5%	1/4W
R1208	1-249-425-11	CARBON	4.7K	5%	1/4W
▲R1209	1-212-881-11	FUSIBLE	100	5%	1/4W F
▲R1210	1-217-151-00	RES, METAL PLATE			0.22
R1211	1-249-417-11	CARBON	1K	5%	1/4W
R1212	1-249-431-11	CARBON	15K	5%	1/4W
R1213	1-249-441-11	CARBON	100K	5%	1/4W
R1214	1-249-421-11	CARBON	2.2K	5%	1/4W
R1215	1-249-421-11	CARBON	2.2K	5%	1/4W
R1216	1-249-421-11	CARBON	2.2K	5%	1/4W
R1217	1-249-421-11	CARBON	2.2K	5%	1/4W
R1218	1-249-397-11	CARBON	22	5%	1/4W
R1219	1-249-397-11	CARBON	22	5%	1/4W
R1220	1-249-397-11	CARBON	22	5%	1/4W
R1221	1-249-397-11	CARBON	22	5%	1/4W
R1227	1-249-429-11	CARBON	10K	5%	1/4W
R1228	1-247-881-00	CARBON	120K	5%	1/4W
R1229	1-249-439-11	CARBON	68K	5%	1/4W
R1230	1-249-439-11	CARBON	68K	5%	1/4W
R1231	1-249-417-11	CARBON	1K	5%	1/4W
R1232	1-249-428-11	CARBON	8.2K	5%	1/4W
R1238	1-249-433-11	CARBON	22K	5%	1/4W
R1239	1-249-426-11	CARBON	5.6K	5%	1/4W
R1251	1-249-417-11	CARBON	1K	5%	1/4W
R1252	1-249-438-11	CARBON	56K	5%	1/4W
R1253	1-249-417-11	CARBON	1K	5%	1/4W
R1254	1-249-438-11	CARBON	56K	5%	1/4W
R1255	1-249-425-11	CARBON	4.7K	5%	1/4W
R1256	1-249-425-11	CARBON	4.7K	5%	1/4W
R1257	1-249-425-11	CARBON	4.7K	5%	1/4W
R1258	1-249-425-11	CARBON	4.7K	5%	1/4W
▲R1259	1-212-881-11	FUSIBLE	100	5%	1/4W F
▲R1260	1-217-151-00	RES, METAL PLATE			0.22
R1261	1-249-417-11	CARBON	1K	5%	1/4W
R1262	1-249-431-11	CARBON	15K	5%	1/4W
R1263	1-249-441-11	CARBON	100K	5%	1/4W
R1268	1-249-397-11	CARBON	22	5%	1/4W
R1269	1-249-397-11	CARBON	22	5%	1/4W
R1270	1-249-397-11	CARBON	22	5%	1/4W
R1271	1-249-397-11	CARBON	22	5%	1/4W

*	1-641-708-11	POWER BOARD	*****		
*	1-533-217-31	HOLDER, FUSE			
*	1-535-141-00	BASE POST 22MM (10MM PITCH) 4P			
*	1-564-321-00	PIN, CONNECTOR 2P			

The components identified by mark ▲ or dotted line with mark ▲ are critical for safety. Replace only with part number specified.

POWER SW TC MAIN

Ref. No.	Part No.	Description			Remark
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< CAPACITOR >

△C1301	1-161-744-00	CERAMIC	0.01uF	400V	
C1314	1-124-122-11	ELECT	100uF	20%	50V
C1315	1-124-927-11	ELECT	4.7uF	20%	100V
C1316	1-124-910-11	ELECT	47uF	20%	50V

< CONNECTOR >

* CN1301	1-564-509-11	PLUG, CONNECTOR	6P		
CN1302	1-506-469-11	CONNECTOR	4P, MALE		
* CN1350	1-580-230-11	PIN, CONNECTOR (PC BOARD)	3P		

< DIODE >

D1307	8-719-002-60	DIODE	UZL-33L		
D1309	8-719-014-66	DIODE	UZP-5, 6B		
D1311	8-719-200-82	DIODE	11ES2		

< TRANSISTOR >

Q1301	8-729-141-83	TRANSISTOR	2SB1094-LK		
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< RESISTOR >

R1303	1-249-421-11	CARBON	2.2K	5%	1/4W
R1304	1-249-425-11	CARBON	4.7K	5%	1/4W

*	1-641-709-11	SW BOARD			
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< JACK >

* CNJ701	1-568-834-11	SOCKET, CONNECTOR	15P		
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< TRANSISTOR >

Q701	8-729-900-89	TRANSISTOR	DTC144ES		
Q702	8-729-900-89	TRANSISTOR	DTC144ES		
Q703	8-729-900-89	TRANSISTOR	DTC144ES		

< RESISTOR >

R702	1-249-437-11	CARBON	47K	5%	1/4W
R703	1-249-424-11	CARBON	3.9K	5%	1/4W
R704	1-249-427-11	CARBON	6.8K	5%	1/4W
R705	1-249-421-11	CARBON	2.2K	5%	1/4W
R706	1-249-416-11	CARBON	820	5%	1/4W

R707	1-249-423-11	CARBON	3.3K	5%	1/4W
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< SWITCH >

S701	1-572-995-11	SWITCH, PUSH (2 KEY)	(TAPE SELECT/DUBBING SPEED)		
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Ref. No.	Part No.	Description			Remark
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*	A-4345-914-A	TC MAIN BOARD, COMPLETE			
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1-535-995-11	JUMPER, FILM (WITH TERMINAL)			
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7-685-646-79	SCREW +BVTP	3X8	TYPE2	N-S
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< CAPACITOR >

C400	1-162-289-31	CERAMIC	390PF	10%	50V
C401	1-136-157-00	FILM	0.022uF	5%	50V
C402	1-124-767-00	ELECT	2.2uF	20%	50V
C403	1-124-443-00	ELECT	100uF	20%	10V
C404	1-162-289-31	CERAMIC	390PF	10%	50V

C405	1-136-157-00	FILM	0.022uF	5%	50V
C406	1-124-767-00	ELECT	2.2uF	20%	50V
C407	1-124-443-00	ELECT	100uF	20%	10V
C408	1-130-479-00	MYLAR	0.0047uF	5%	50V
C409	1-162-289-31	CERAMIC	390PF	10%	50V

C411	1-124-925-11	ELECT	2.2uF	20%	100V
C413	1-124-472-11	ELECT	470uF	20%	10V
C415	1-124-257-00	ELECT	2.2uF	20%	50V
C416	1-126-163-11	ELECT	4.7uF	20%	50V
C417	1-124-465-00	ELECT	0.47uF	20%	50V

C418	1-124-907-11	ELECT	10uF	20%	50V
C419	1-124-907-11	ELECT	10uF	20%	50V
C420	1-124-907-11	ELECT	10uF	20%	50V
C421	1-162-284-31	CERAMIC	150PF	10%	50V
C422	1-136-273-91	FILM	75PF	5%	630V

C423	1-136-271-00	FILM	56PF	5%	630V
C424	1-162-280-31	CERAMIC	82PF	10%	50V
C441	1-162-282-31	CERAMIC	100PF	10%	50V
C442	1-164-159-11	CERAMIC	0.1uF	50V	
C443	1-124-903-11	ELECT	1uF	20%	50V

C446	1-162-282-31	CERAMIC	100PF	10%	50V
C500	1-162-289-31	CERAMIC	390PF	10%	50V
C501	1-136-157-00	FILM	0.022uF	5%	50V
C502	1-124-767-00	ELECT	2.2uF	20%	50V
C503	1-124-443-00	ELECT	100uF	20%	10V

C504	1-162-289-31	CERAMIC	390PF	10%	50V
C505	1-136-157-00	FILM	0.022uF	5%	50V
C506	1-124-767-00	ELECT	2.2uF	20%	50V
C507	1-124-443-00	ELECT	100uF	20%	10V
C508	1-130-479-00	MYLAR	0.0047uF	5%	50V

C509	1-162-289-31	CERAMIC	390PF	10%	50V
C511	1-124-925-11	ELECT	2.2uF	20%	100V
C515	1-124-257-00	ELECT	2.2uF	20%	50V
C516	1-126-163-11	ELECT	4.7uF	20%	50V
C517	1-124-465-00	ELECT	0.47uF	20%	50V

C518	1-124-907-11	ELECT	10uF	20%	50V
C520	1-124-907-11	ELECT	10uF	20%	50V

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

TC MAIN

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark			
C521	1-162-284-31	CERAMIC	150PF	10%	50V	IC502	8-759-040-01	IC MC14001BCP				
C522	1-136-273-91	FILM	75PF	5%	630V	IC503	8-759-140-11	IC uPD4011BC				
C523	1-136-271-00	FILM	56PF	5%	630V	IC515	8-759-604-86	IC M5F7807				
C524	1-162-280-31	CERAMIC	82PF	10%	50V	IC516	8-759-604-90	IC M5F7907				
C525	1-136-562-11	FILM	0.0082uF	5%	630V	< COIL >						
C526	1-130-482-00	MYLAR	0.0082uF	5%	50V	L400	1-410-780-11	INDUCTOR	27mH			
C527	1-124-925-11	ELECT	2.2uF	20%	100V	L500	1-410-780-11	INDUCTOR	27mH			
C528	1-130-482-00	MYLAR	0.0082uF	5%	50V	< TRANSISTOR >						
C529	1-130-478-00	MYLAR	0.0039uF	5%	50V	Q400	8-729-900-89	TRANSISTOR	DTC144ES			
C530	1-130-478-00	MYLAR	0.0039uF	5%	50V	Q402	8-729-119-78	TRANSISTOR	2SC2785-HFE			
C531	1-124-902-00	ELECT	0.47uF	20%	50V	Q403	8-729-119-78	TRANSISTOR	2SC2785-HFE			
C532	1-124-925-11	ELECT	2.2uF	20%	100V	Q500	8-729-900-89	TRANSISTOR	DTC144ES			
C533	1-124-556-11	ELECT	2200uF	20%	16V	Q502	8-729-119-78	TRANSISTOR	2SC2785-HFE			
C534	1-124-120-11	ELECT	220uF	20%	25V	Q503	8-729-119-78	TRANSISTOR	2SC2785-HFE			
C535	1-124-927-11	ELECT	4.7uF	20%	100V	Q504	8-729-194-57	TRANSISTOR	2SC945-P			
C536	1-124-903-11	ELECT	1uF	20%	50V	Q505	8-729-194-57	TRANSISTOR	2SC945-P			
C540	1-124-472-11	ELECT	470uF	20%	10V	Q506	8-729-281-52	TRANSISTOR	2SC1815-Y			
C541	1-162-282-31	CERAMIC	100PF	10%	50V	Q507	8-729-900-61	TRANSISTOR	DTA114ES			
C542	1-164-159-11	CERAMIC	0.1uF		50V	Q508	8-729-900-80	TRANSISTOR	DTC114ES			
C546	1-162-282-31	CERAMIC	100PF	10%	50V	Q509	8-729-119-76	TRANSISTOR	2SA1175-HFE			
C560	1-124-472-11	ELECT	470uF	20%	10V	Q511	8-729-900-65	TRANSISTOR	DTA144ES			
< CONNECTOR >												
* CN400	1-564-506-11	PLUG, CONNECTOR 3P										
* CN401	1-564-509-11	PLUG, CONNECTOR 6P										
* CN402	1-564-505-11	PLUG, CONNECTOR 2P										
* CN405	1-560-061-00	PIN, CONNECTOR 3P										
* CN407	1-560-060-00	PIN, CONNECTOR 2P										
* CN410	1-564-506-11	PLUG, CONNECTOR 3P										
* CN411	1-564-508-11	PLUG, CONNECTOR 5P										
* CN412	1-564-706-11	PIN, CONNECTOR (SMALL TYPE) 4P										
< DIODE >												
D500	8-719-987-63	DIODE	1N4148M									
D501	8-719-987-63	DIODE	1N4148M									
D502	8-719-987-63	DIODE	1N4148M									
D503	8-719-987-63	DIODE	1N4148M									
D504	8-719-987-63	DIODE	1N4148M									
D505	8-719-987-63	DIODE	1N4148M									
D506	8-719-987-63	DIODE	1N4148M									
D507	8-719-987-63	DIODE	1N4148M									
< IC >												
IC400	8-759-111-44	IC uPC4570C-1										
IC401	8-759-111-44	IC uPC4570C-1										
IC402	8-759-000-49	IC MC14066BCP										
IC404	8-752-060-64	IC CXA1198AP										
IC501	8-759-140-11	IC uPD4011BC										
< RESISTOR >												
R417	1-249-433-11	CARBON	22K	5%	1/4W							
R418	1-249-441-11	CARBON	100K	5%	1/4W							
R431	1-249-435-11	CARBON	33K	5%	1/4W							
R432	1-247-868-11	CARBON	36K	5%	1/4W							
R433	1-247-883-00	CARBON	150K	5%	1/4W							
R436	1-249-437-11	CARBON	47K	5%	1/4W							
R437	1-249-437-11	CARBON	47K	5%	1/4W							
R438	1-247-874-11	CARBON	62K	5%	1/4W							
R439	1-249-440-11	CARBON	82K	5%	1/4W							
R441	1-247-882-11	CARBON	130K	5%	1/4W							
R442	1-249-435-11	CARBON	33K	5%	1/4W							
R443	1-247-868-11	CARBON	36K	5%	1/4W							
R446	1-249-438-11	CARBON	56K	5%	1/4W							
R450	1-247-868-11	CARBON	36K	5%	1/4W							
R451	1-247-872-11	CARBON	51K	5%	1/4W							
R452	1-249-437-11	CARBON	47K	5%	1/4W							
R453	1-247-881-00	CARBON	120K	5%	1/4W							
R517	1-249-433-11	CARBON	22K	5%	1/4W							
R518	1-249-441-11	CARBON	100K	5%	1/4W							
R527	1-249-441-11	CARBON	100K	5%	1/4W							
R532	1-249-393-11	CARBON	10	5%	1/4W							
R538	1-249-385-11	CARBON	2.2	5%	1/6W							
R539	1-249-392-11	CARBON	8.2	5%	1/4W							

TC MAIN VOL

Ref. No.	Part No.	Description	Remark
R540	1-249-392-11	CARBON	8.2 5% 1/4W

< VARIABLE RESISTOR >

RV400	1-230-496-11	RES, ADJ, CARBON 10K
RV401	1-230-496-11	RES, ADJ, CARBON 10K
RV402	1-230-496-11	RES, ADJ, CARBON 10K
RV403	1-230-499-11	RES, ADJ, CARBON 100K
RV500	1-230-496-11	RES, ADJ, CARBON 10K
RV501	1-230-496-11	RES, ADJ, CARBON 10K
RV502	1-230-496-11	RES, ADJ, CARBON 10K
RV503	1-230-499-11	RES, ADJ, CARBON 100K
RV504	1-230-495-11	RES, ADJ, CARBON 2.2K
RV505	1-230-495-11	RES, ADJ, CARBON 2.2K

< RELAY >

RY400	1-515-614-11	RELAY
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< TRANSFORMER >

T500	1-433-349-11	TRANSFORMER, BIAS OSCILLATION
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* 1-641-706-11 VOL BOARD

< CAPACITOR >

C1120	1-161-379-00	CERAMIC	0.01uF	20%	25V
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< VARIABLE RESISTOR >

RV1109	1-241-350-11	RES, VAR, CARBON 100K/100K (VOLUME)
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MISCELLANEOUS

11	1-590-459-11	WIRE, FLAT TYPE (11 CORE)
12	1-590-578-11	WIRE, FLAT TYPE (19 CORE)
△15	1-569-007-11	ADAPTER, CONVERSION 2P (E3, MY)
△59	1-690-708-11	CORD (WITH CONNECTOR)
△CNP13011-575-653-11		CORD, POWER (E, MY)

△CNP13011-690-608-11		CORD, POWER (WITH CONNECTOR) (AUS)
△F1301	1-532-237-00	FUSE, TIME LAG (3.15A)
△F1302	1-532-237-00	FUSE, TIME LAG (3.15A)
△F1303	1-532-203-00	FUSE (2.0A)
△F1304	1-532-203-00	FUSE (2.0A)

HE1	1-543-673-11	HEAD, MAGNETIC (ERASE) (DECK B)
HP1	1-543-319-11	HEAD, MAGNETIC (PB) (DECK A)
HRP1	1-543-319-11	HEAD, MAGNETIC (REC/PB) (DECK B)
M1	X-3362-377-1	MOTOR (WH) ASSY
△S1301	1-572-267-61	SWITCH, PUSH (AC POWER) (1 KEY)

Ref. No.	Part No.	Description	Remark
△T1301	1-450-311-11	TRANSFORMER, POWER	
△VS1301	1-570-046-21	SWITCH, VOLTAGE CHANGE	

ACCESSORIES & PACKING MATERIALS

1-465-962-11	COMMANDER (STANDARD TYPE) (RM-S171)
* 3-376-136-01	CUSHION (HALF)
* 3-703-713-41	STICKER, SONY SYMBOL (10)
4-921-934-01	HEET, PROTECTION
4-941-762-01	COVER BATTERY (RM-S171)
* 4-949-428-11	CUSHION

HARDWARE LIST

#1	7-685-646-79 SCREW +BVTP 3X8 TYPE2 N-S
#2	7-685-133-19 SCREW +P 2.6X6 TYPE2
#3	7-621-775-20 SCREW +B 2.6X5
#4	7-685-135-19 SCREW +BTP 2.6X10 TYPE2 N-S
#5	7-685-103-19 SCREW +P 2X5 TYPE2 NON-SLIT
#6	7-623-921-01 RING, RETAINING, CAPSTAN
#7	7-682-547-04 SCREW +BVTT 3X6 (S)
#8	7-688-001-01 W 2, SMALL
#9	7-685-534-19 SCREW +BTP 2.6X8 TYPE2 N-S
#10	7-685-650-79 SCREW +BVTP 3X16 TYPE2 IT-3

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

PS-LX49P

SERVICE MANUAL

AEP Model
UK Model

East European Model



SPECIFICATIONS

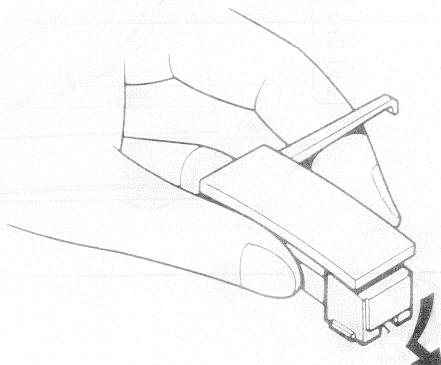
Turntable	
Platter	30cm (12 in.)
Motor	DC servo motor
Drive system	Belt drive
Speed	33 1/3 rpm/45 rpm switchable
Wow and flutter	0.2% (WRMS)
Signal-to-noise ratio	60 dB (DIN-B)
Automatic system	Return, reject
Tonearm	
Type	Dynamically balanced
Pivot-to-stylus length	203 mm (8 in.)
Overall arm length	235 mm (9 1/4 in.)
Cartridge	
Type	Moving magnet type
Frequency response	20 Hz-20KHz
Stylus	CN-234
General	
Dimensions	355x96.5x348 mm(w/h/d) (14x3 4/5x13 3/4 inches)
Weight	Approx. 1.95kg (4 lb 5 oz)
Power requirements	12V DC
Accessory supplied	45-rpm adaptor (1)
Optional accessories	Replacement stylus CN-234 Stat spray XP-C10 Cleaner XP-C1, XP-C2

Design and specifications subject to change without notice.

Note

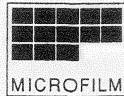
This appliance conforms with EEC Directive 87/308/EEC regarding interference suppression.

REPLACING THE STYLUS



Replace the stylus after about 400 hours of use because using a worn stylus will damage records. An CN-234 replacement stylus is available at your Sony dealer. Be sure to turn the amplifier off before proceeding with replacement.

- 1 While holding the cartridge, detach the stylus assembly as illustrated.
- 2 Insert the new stylus into the cartridge.

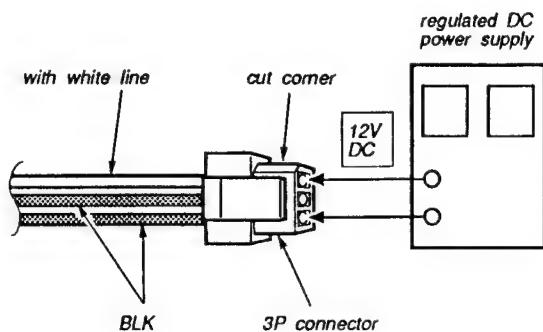
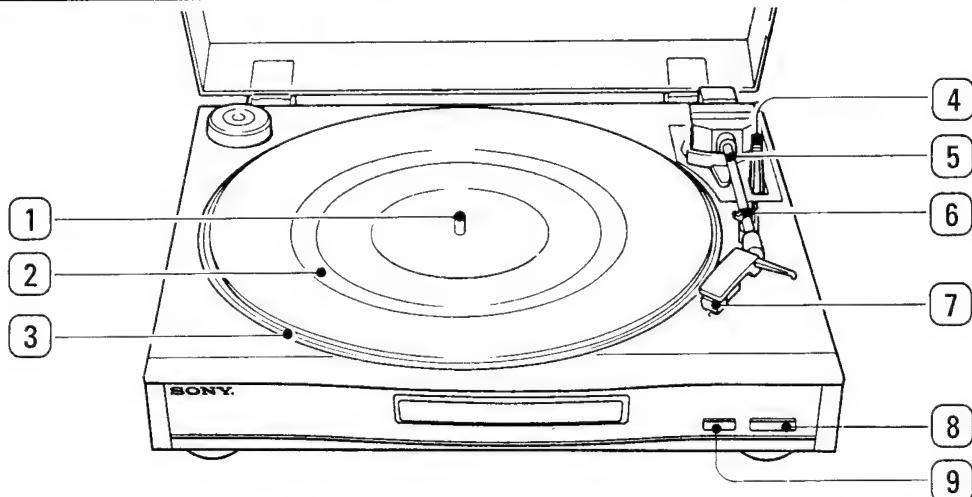


MICROFILM

STEREO TURNTABLE SYSTEM
SONY®

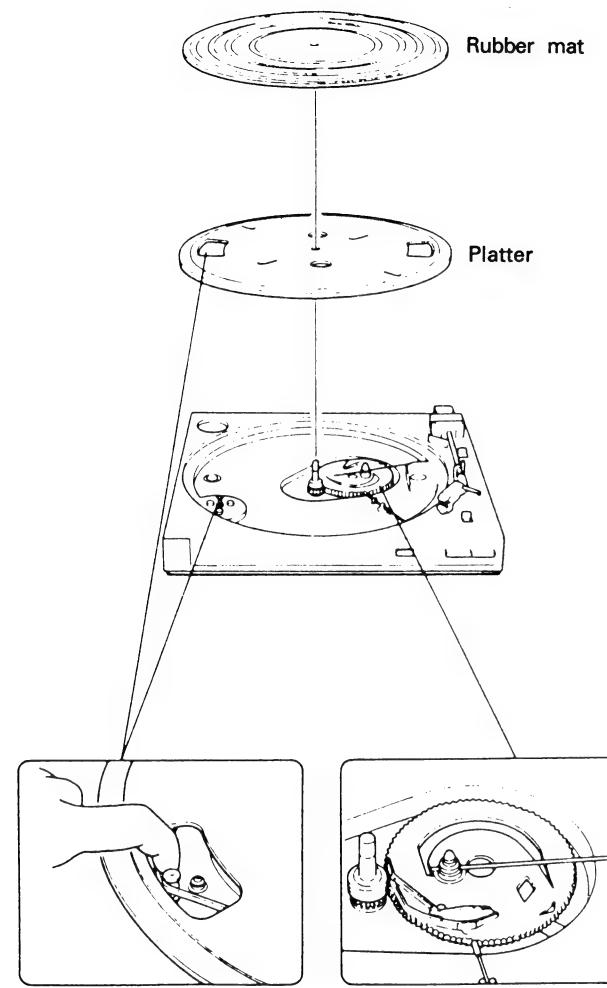
REPAIRING PRECAUTION**[To supply B+ voltage]**

The power of this unit is fed from HST model. Because of this, connect the regulated power supply as illustrated right when this unit alone operates.

**LOCATION AND FUNCTION OF CONTROLS**

- 1** Center spindle
- 2** Rubber mat
- 3** Turntable platter
- 4** Cueing lever (▼ / ▲)
- 5** Tonearm
- 6** Arm rest
- 7** Cartridge
- 8** REJECT button
- 9** SPEED select button
Allows selection of 45rpm or 33rpm turntable speed.

TURNTABLE ASSEMBLY

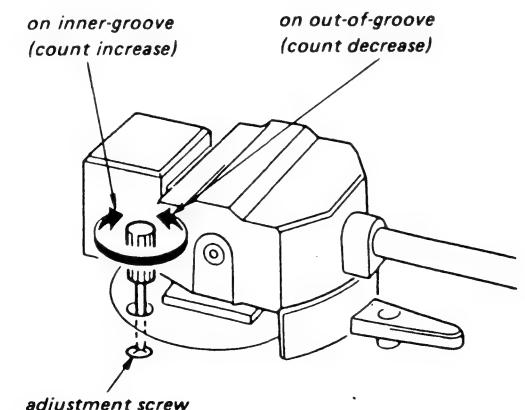


Hook the belt on the motor pulley.
If the belt is removed from the platter, replace it with the glossy side outward.

Stylus Drop-point Adjustment

1. Place a test record (YFSC-16) on the turntable sheet.
2. Set the SPEED switch to 33.
3. Press the START button.
4. By using a screwdriver, turn the adjustment screw so that the stylus tip drops on the record at the 7-17 counts position.
5. Move the arm to return detecting groove and confirm that the auto-return operation is started normally.

Note: The proper adjustment for a 30cm record is also correct for a 17cm record.
when turning adjustment screw, put the arm on the arm rest.

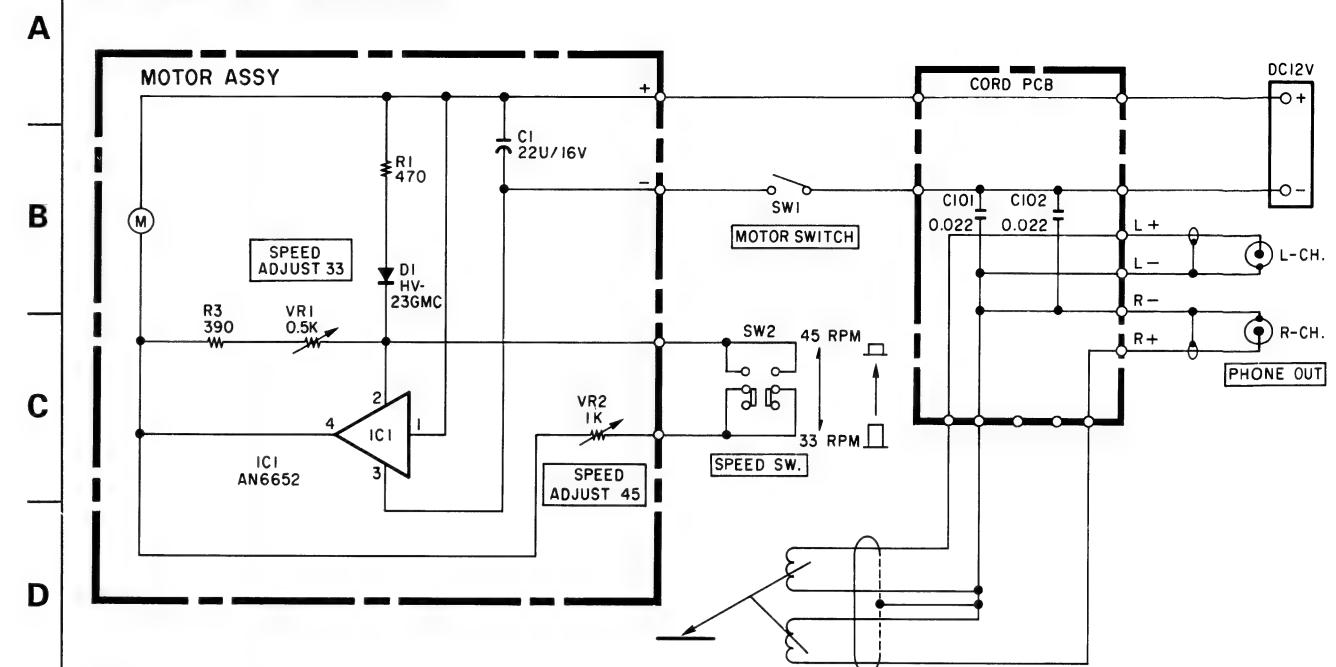


PS-LX49P

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1 2 3 4 5 6 7

SCHEMATIC DIAGRAM

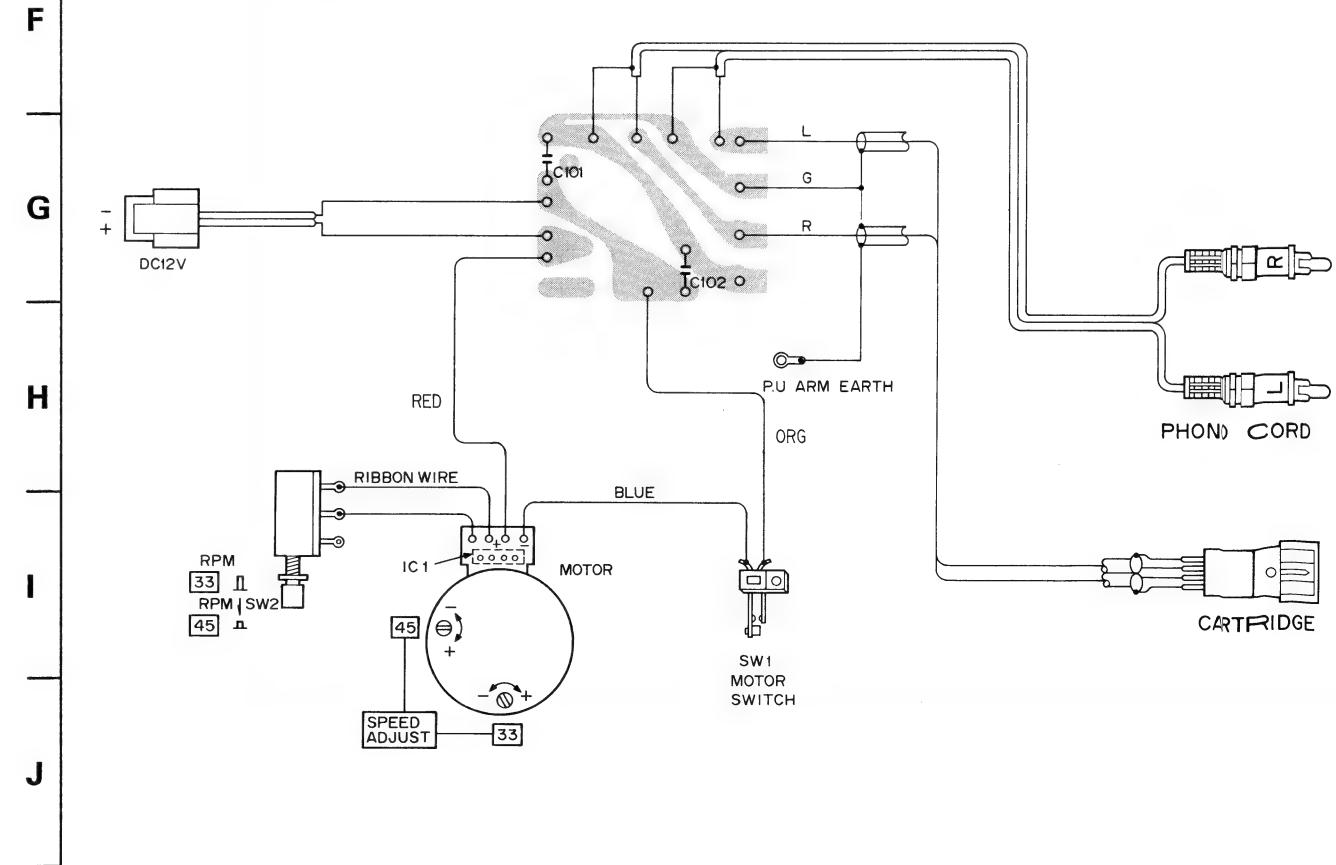


NOTE:

- All capacitors are in μF unless otherwise noted. $\mu\text{F}50\text{V}$ or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.

- Switches :
- | Ref.No. | Switch | Position |
|---------|--------|----------|
| SW1 | MOTOR | OFF |
| SW2 | SPEED | 33 |

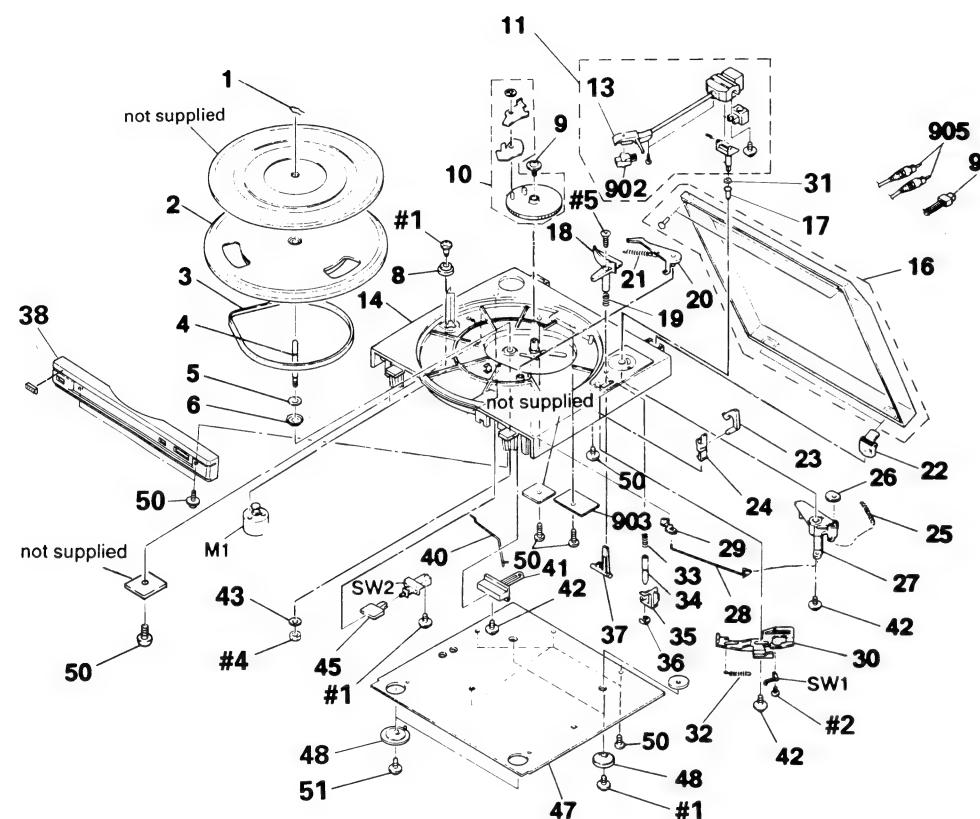
WIRING DIAGRAM



EXPLODED VIEW

NOTE:

- XX, -X mean standardized parts, so they may have some differences from the original one.
- The construction parts of an assembled part are indicated with a callout number in the remark column.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Screw(# mark) list is given in the last of this parts list.



Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
1	4-895-490-01	CLIP, SPINDLE		26	4-895-818-01	CAM, ADJUSTMENT	
2	A-4604-243-A	TURNTABLE ASSY		27	* 4-896-372-01	LINK, RETURN	
3	4-943-396-01	BELT		28	4-896-371-01	ROD, TRIP	
4	* 4-896-361-01	SPINDLE		29	* 4-896-304-01	LEVER, TRIP	
5	4-895-024-01	POLY WASHER		30	* 4-896-373-01	ARM, SLIDE	
6	4-943-399-01	WASHER, FLAT		31	3-701-446-01	WASHER	
8	4-895-414-01	GROMMET (A)		32	4-896-374-01	SPRING (SLIDE ARM)	
9	4-896-294-01	SCREW(7-BID 3006 2N3A 10D)		33	4-943-405-01	SPRING, DUMPING	
10	4-895-495-01	GEAR, CAM, CLUTCH		34	4-896-252-01	SHAFT, ARM LIFT	
11	A-4660-132-A	ARM ASSY		35	4-896-253-01	FORK, LIFT	
13	1-543-927-11	HEAD P.U.		36	4-896-254-01	RING (DIA. 3), E	
14	* 4-943-945-01	CABINET, MAIN		37	4-896-212-01	LEVER, CUE	
16	A-4620-041-A	COVER ASSY, DUST		38	A-4660-133-A	PANEL, FRONT	
17	* 4-947-001-01	SHAFT, P.U.		40	4-896-367-01	LOT (REJECT)	
18	4-896-258-01	PLATFORM, LIFT		41	4-950-458-01	BUTTON (REJECT)	
19	4-896-267-01	SPRING (A)		42	4-896-369-01	SCREW (7-CUP 3008 WF12 ZN3A)	
20	* 4-896-364-01	LEVER (REJECT)		43	4-943-397-01	WASHER, SPRING	
21	4-896-365-01	SPRING (C)		45	4-950-459-01	BUTTON (SPEED)	
22	4-896-321-01	HINGE ASSY		47	4-947-002-01	BOARD BOTTOM	
23	4-895-418-01	P.U. TUBE HOOK		48	4-895-435-01	FOOT	
24	4-943-398-01	REST, P.U.		50	4-896-375-01	SCREW (7-CUP 3012 WF08 ZN3K)	
25	4-895-460-01	ADJUST SPRING		51	4-943-406-01	SCREW (7-CUP 3006 WF12 ZN3A)	

ELECTRICAL PARTS LIST

NOTE:

When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms
METAL : Metal-film resistor
METAL OXIDE : Metal Oxide-film resistor
F : nonflammable
- SEMICONDUCTORS
In each case, u : μ , for example :
uA...: μ A..., uPA...: μ PA...,
uPB...: μ PB..., uPC...: μ PC...,
uPD...: μ PD...
- CAPACITORS
MF : μ F, PF : $\mu\mu$ F
- COILS
MMH : mH, uH : μ H

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
902	1-549-142-11	CARTRIDGE					PACKING MATERIAL
903	1-643-201-11	PC BOARD, CORD					* 4-950-461-01 CUSHION (RIGHT)
905	1-555-116-11	CORD, CONNECTION					* 4-950-480-01 CUSHION (LEFT)
906	1-557-109-21	CORD, CONNECTION (3 CORE)					*****
M1	A-4604-244-A	MOTOR ASSY					SCREW
SW1	1-570-666-11	SWITCH, LEAF					#1 7-685-646-79 SCREW (7-CUP 3010 WF12 ZN3A)
SW2	1-571-089-11	SWITCH, PUSH (1KEY) (SPEED)					#2 7-685-104-19 SCREW (7-PAN 2006 ZN3A)
							#4 7-684-024-04 NUT 50 ZN3A
							#5 7-621-561-49 SCREW (1-FLAT 2612 ZN3K)

PS-LX49P

SONY SERVICE MANUAL REVISED

AEP Model
UK Model
East European Model

CORRECTION-1R

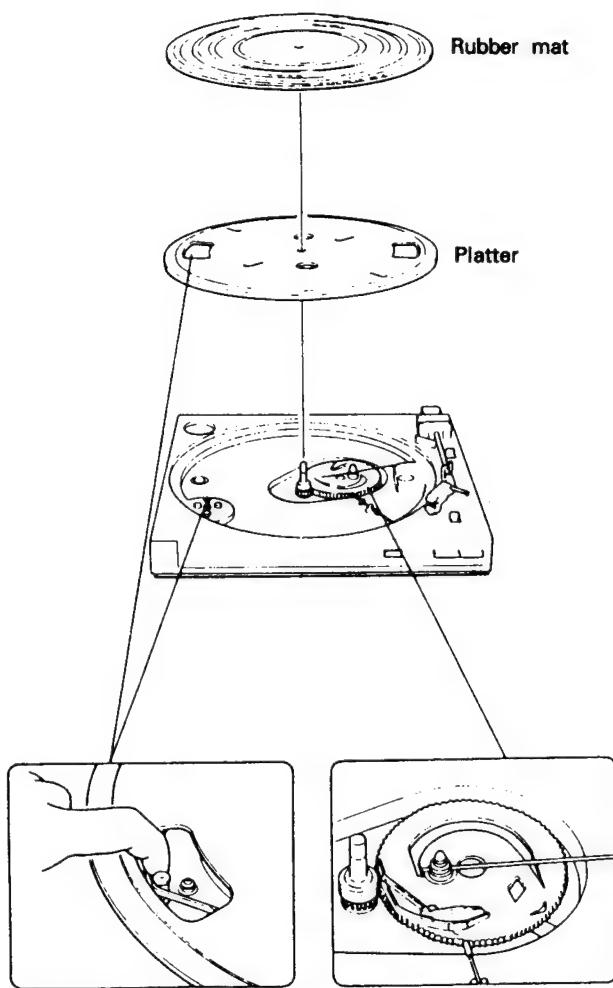
Correct your service manual as shown below.



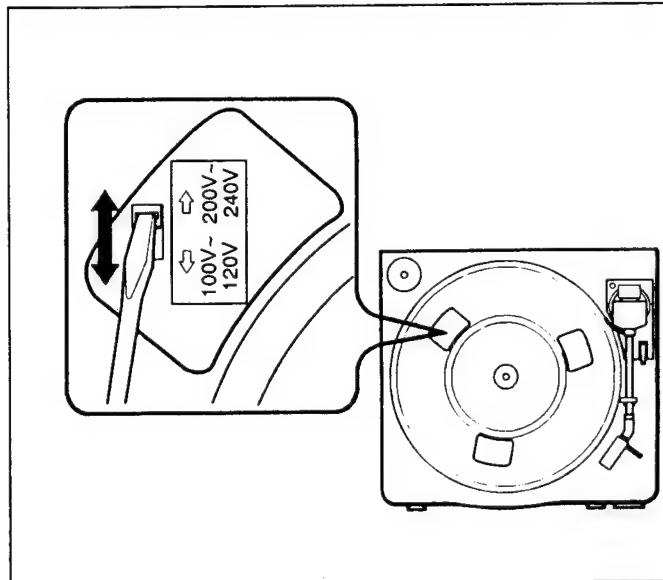
: Indicates corrected portion

Page	Incorrect	Correct
5	<p>Ref No. Part No. Description</p> <p>13 1-543-927-11 HEAD P.U.</p>	<p>Ref No. Part No. Description</p> <p>— — —</p>
6	902 1-549-142-11 CARTRIDGE	902 1-251-028-11 CARTRIDGE

TURNTABLE ASSEMBLY



Hook the belt on the motor pulley.
If the belt is removed from the platter, replace it with
the glossy side outward.



Speed Adjustment

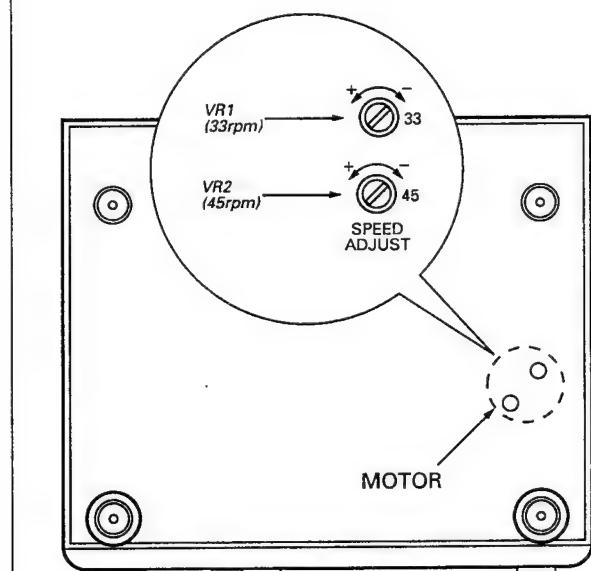
Note: Be sure to perform 45rpm adjustment before 33rpm.

1. Place a stroboscope board on the turntable sheet.
 2. Set the SPEED switch to 45.

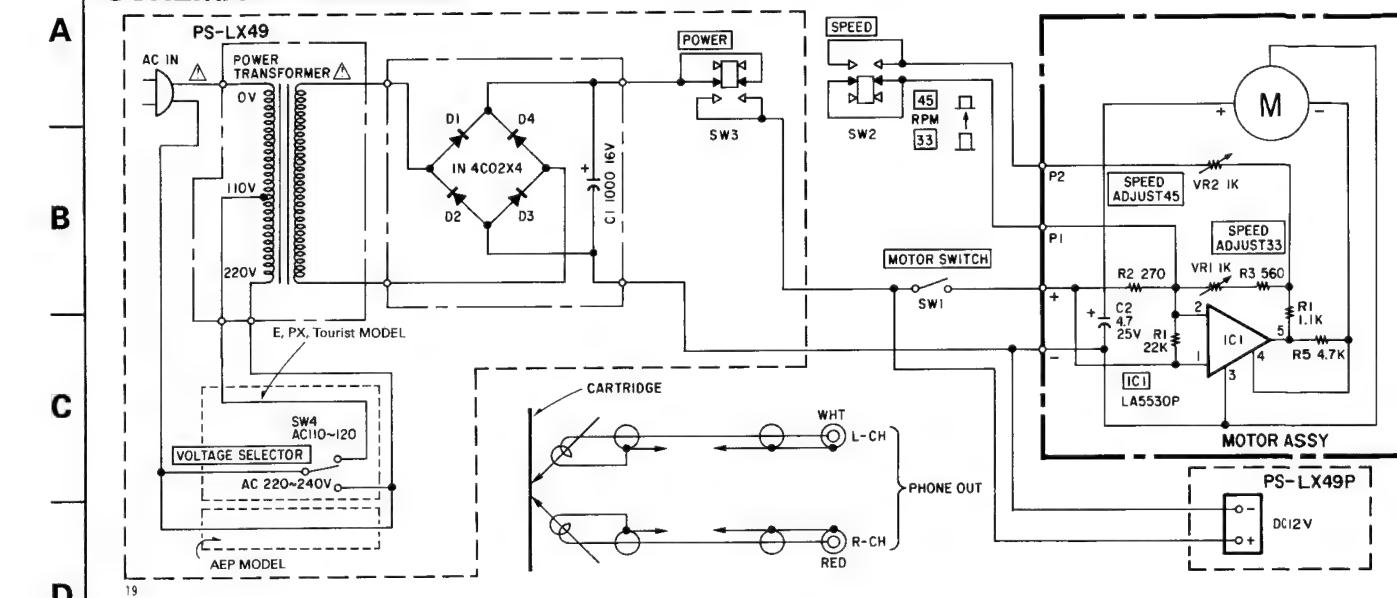
2. Set the SPEED switch.
Press the START button.

Adjust VR2 so that the striped pattern of stroboscope board is stationary.

3. Set the SPEED switch to 33. Adjust VR1 in the same way.

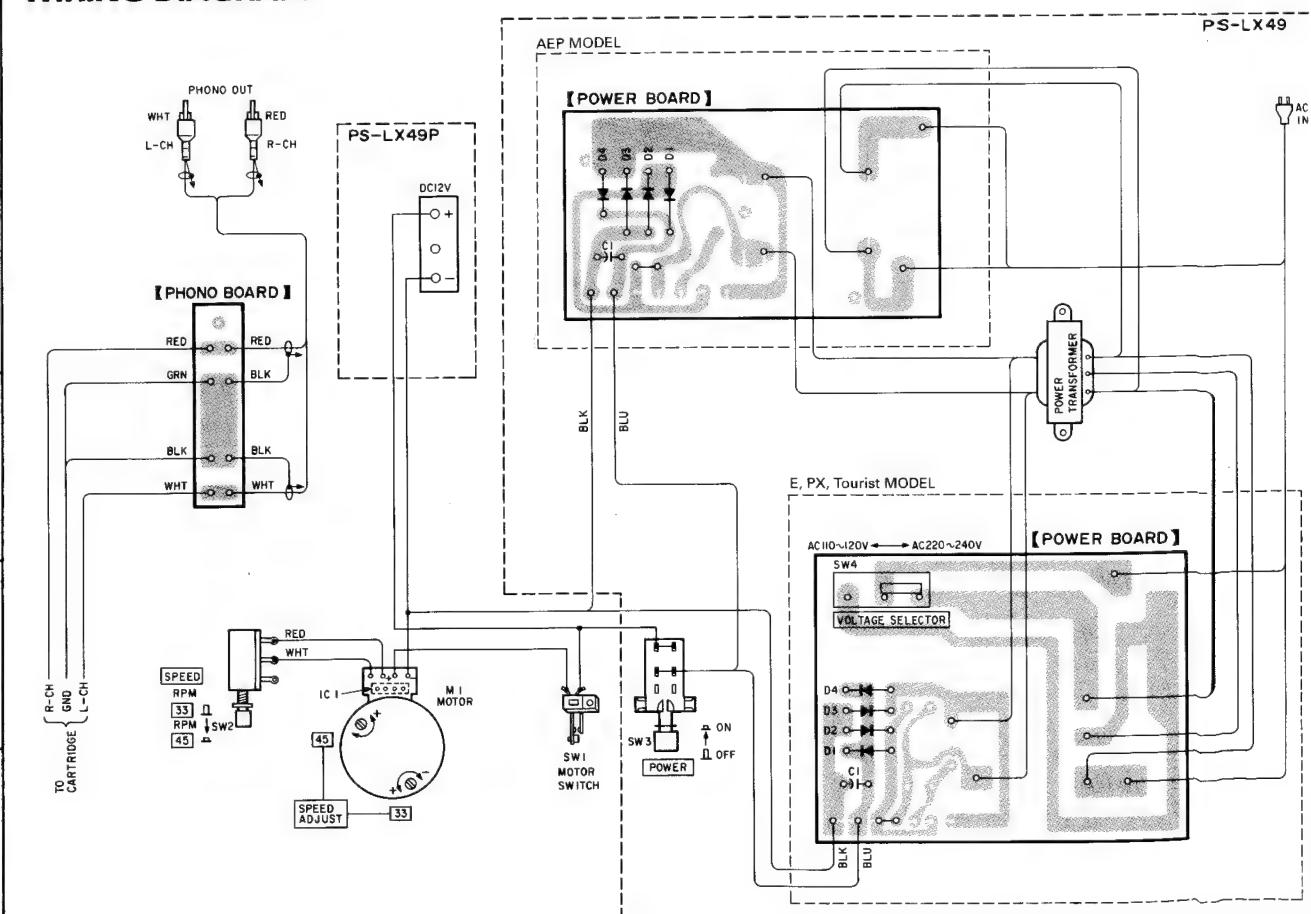


SCHEMATIC DIAGRAM



NOTE:

- All capacitors are in μF unless otherwise noted. $\mu\text{F} : \mu\text{F} 50\text{W}$ or less are not indicated except for electrolytics and tantalums.
 - All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.



EXPLODED VIEW

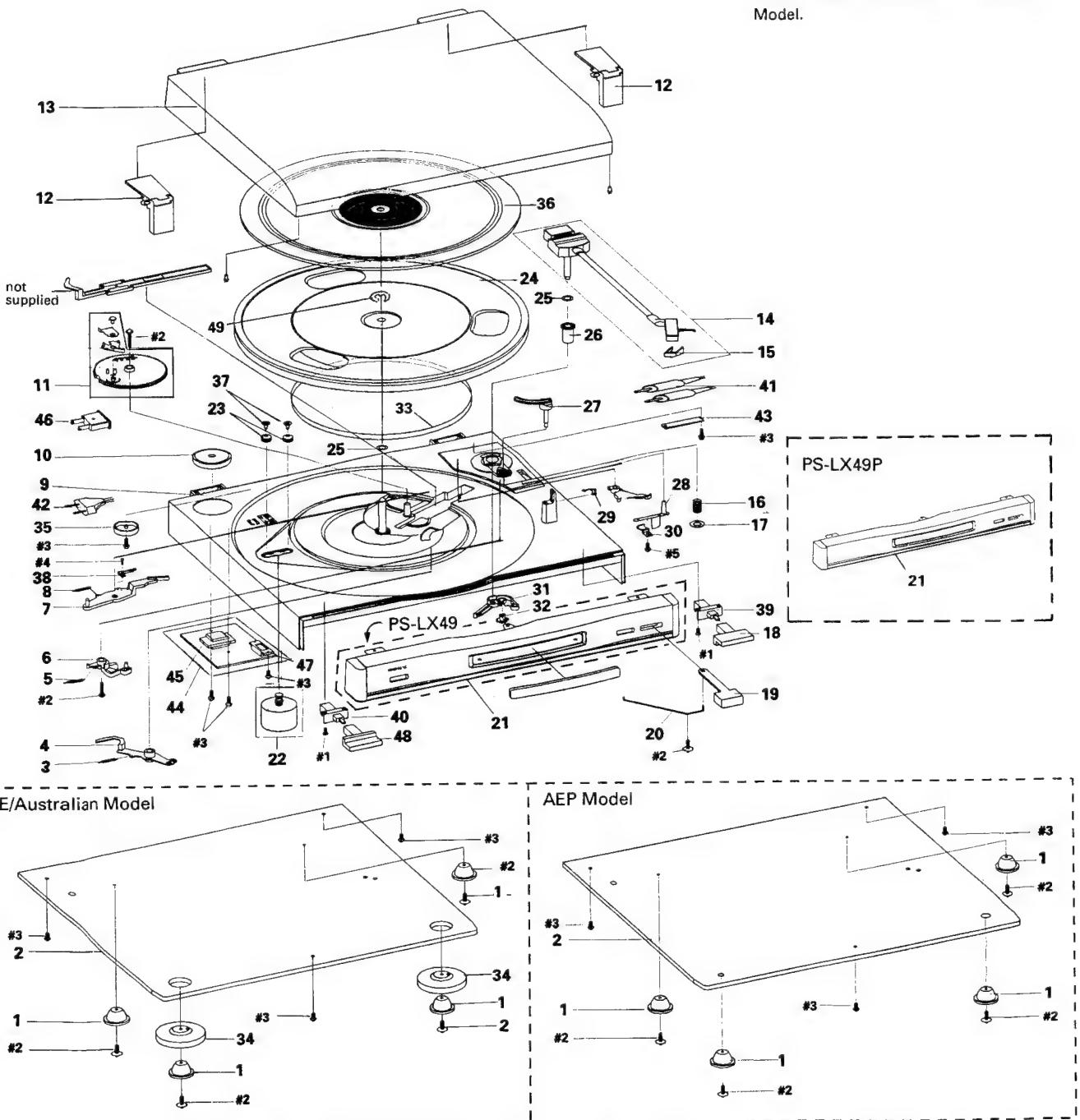
NOTE:

- -XX, -X mean standardized parts, so they may have some differences from the original one.
- The construction parts of an assembled part are indicated with a collation number in the remark column.

- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
 - The mechanical parts with no reference number in the exploded views are not supplied.
 - Screw(# mark) list is given in the last of this parts list.

The components identified by mark △ or dotted line with mark △ are critical for safety.
Replace only with part number specified.

 - PX and Tourist Models are identical to E Model.



Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
1	4-950-472-01	FOOT		5	4-950-455-01	SPRING-ELEVATOR	
* 2	4-950-471-01	COVER-BOTTOM (AUS, E)		6	4-950-454-01	ELEVATOR	
* 2	4-953-061-01	COVER-BOTTOM (AEP)		7	4-950-463-01	ARM-CONTROL	
3	4-950-453-01	SPRING-REJECT		8	4-950-464-01	SPRING-CONTROL ARM	
4	4-950-452-01	LEVER-REJECT		* 9	4-950-431-01	CABINET-UPPER	

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
10	4-950-467-01	ADAPTOR-45RPM		30	4-950-441-01	BRACKET-CUEING	
11	A-4660-140-A	GEAR ASSY, RING		31	4-950-450-01	ARM-FEED	
12	4-950-432-01	HINGE		32	4-950-451-01	CAM-ADJUST	
13	A-4660-138-A	COVER ASSY, DUST		33	4-950-434-01	BELT	
14	A-4660-139-A	ARM ASSY, TONE		34	4-950-474-01	COVER-FOOT (AUS, E)	
15	4-951-290-01	STYLUS (CN-234)		* 35	4-950-514-01	WASHER CODE (AEP, E)	
16	4-950-442-01	SPRING-ELEVATION		36	A-4660-142-A	RUBBER ASSY, SHEET	
17	4-950-444-01	WASHER-C/S		37	4-950-469-01	SCREW-SETTING MOTOR	
18	4-950-445-01	BUTTON-SPEED		38	1-572-746-11	SWITCH, LEAF	
19	4-950-447-01	BUTTON-REJECT		39	1-572-744-11	SWITCH, PUSH (2 KEY) (SPEED)	
20	4-950-448-01	LINK-REJECT		▲40	1-572-744-11	SWITCH, PUSH (POWER) (LX49)	
21	A-4660-137-A	PANEL (G) ASSY, FRONT (LX49P) (AUS)		41	1-590-871-11	CORD, CONNECTION (3 CORE)	
21	A-4660-143-A	PANEL (G) ASSY, FRONT (LX49) (AEP, E)		42	1-558-943-11	CORD, POWER (LX49) (E)	
22	A-4660-141-A	MOTOR ASSY		42	1-558-944-11	CORD, POWER (LX49) (AEP)	
23	4-950-470-01	CUSHION-MOTOR		43	1-639-237-11	PHONE BOARD	
24	4-950-433-01	PLATTER		▲44	1-639-239-11	POWER BOARD (LX49) (E)	
25	4-950-435-01	SPACER		▲44	1-639-236-11	POWER BOARD (LX49) (AEP)	
26	4-950-436-01	BUSHING-TONE ARM		▲45	1-450-508-11	TRANSFORMER, POWER (LX49)	
27	4-950-437-01	ARM-ELEVATION		▲46	1-693-159-11	ADAPTER, AC (LX49) (E)	
28	4-950-440-01	LEVER-CUEING		▲47	1-572-745-11	VOLTAGE SELECTOR (LX49) (E)	
29	4-950-439-01	LOCKER-ARM		48	4-950-513-01	BUTTON POWER (AEP, E)	
				49	4-952-050-01	E RING	

ELECTRICAL PARTS LIST

NOTE:

The components identified by mark Δ on dotted line with mark Δ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.

- XX, -X mean standardized parts, so they may have some difference from the original one.
 - RESISTORS**
All resistors are in ohms
METAL : Metal-film resistor
METAL OXIDE : Metal Oxide-film resistor
F : nonflammable
 - Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
 - SEMICONDUCTORS**
In each case, u : μ , for example :
uA... : μ A..., uPA... : μ PA...,
uPB... : μ PB..., uPC... : μ PC...,
uPD... : μ PD...
 - CAPACITORS**
MF : μ F, PF : $\mu\mu$ F
 - COILS**
MMH : mH, uH : μ H
 - PX and Tourist Models are identical to E Model.

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
		MISCELLANEOUS *****				ACCESSORIES & PACKING MATERIALS *****	
38	1-572-746-11	SWITCH, LEAF		*	4-950-496-01	SNOW BOX (L)	
39	1-572-744-11	SWITCH, PUSH (2 KEY) (SPEED)		*	4-950-503-01	SNOW BOX (R)	
△40	1-572-744-11	SWITCH, PUSH (POWER) (LX49)		*	4-950-504-01	CARTON (AUS)	
41	1-590-871-11	CORD, CONNECTION (3 CORE)		*	4-950-515-01	CARTON (E)	
△42	1-558-943-11	CORD, POWER (LX49) (E)			3-754-841-11	MANUAL, INSTRUCTION (English, French, Spanish, Portuguese) (AEP, E)	
△42	1-558-944-11	CORD, POWER (LX49) (AEP)			3-754-841-41	MANUAL, INSTRUCTION (German, Dutch, Swedish, Italian) (AEP)	
△44	1-639-236-11	POWER BOARD (LX49) (AEP)			*****	*****	
△44	1-639-239-11	POWER BOARD (LX49) (E)					
△45	1-450-508-11	TRANSFORMER, POWER (LX49)					
△47	1-572-745-11	VOLTAGE SELECTOR (LX49) (E)					
						HARDWARE LIST	

HARDWARE LIST

#1 7-685-246-19 SCREW +KTP 3X8 TYPE2 NON-SLIT
#2 7-685-903-21 SCREW +PTPWH 3X8 TYPE2
#3 7-685-546-19 SCREW
#4 7-685-104-11 SCREW +P 2X6 TYPE2 NON-SLIT

English
92C1960-1
uted in Japan
© 1992 .3

PS-LX49/LX49P

SERVICE MANUAL

AEP Model

E Model

PX Model

Tourist Model

PS-LX49

Australian Model

PS-LX49P



Photo : PS-LX49

SPECIFICATIONS

Turntable

Platter	30cm (12 in.)
Motor	DC servo motor
Drive system	Belt drive
Speed	33 1/3 rpm/45 rpm switchable
Wow and flutter	0.2% (WRMS)
Signal-to-noise ratio	60 dB (DIN-B)
Automatic system	Return, reject

Tonearm

Type	Dynamically balanced
Pivot-to-stylus length	203 mm (8 in.)
Overall arm length	235 mm (9 1/4 in.)

Cartridge

Type	Moving magnet type
Frequency response	20 Hz-20kHz
Stylus	CN-234

General

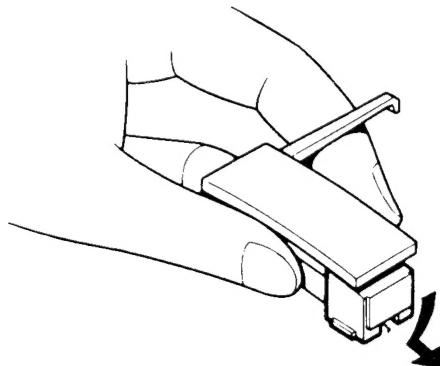
Dimensions	355 × 94 × 345 mm(w/h/d) (14 × 3 1/4 × 13 1/2 inches)
Weight	Approx. 2.5 kg (5 lb 8 oz)
Power requirement	AEP, Italian, Germany model: 220-230 V AC, 50/60 Hz PX, Tourist, E, Saudi Aravia model: 110-120 V/220-240V AC, Adjustable with the voltage selector, 50/60 Hz Australia model 12V DC 2 W 45-rpm adaptor (1) Replacement stylus CN-234 Stat spray XP-C10 Cleaner XP-C1, XP-C2

Design and specifications subject to change without notice.

Note

This appliance conforms with EEC Directive 87/308/EEC regarding interference suppression.

REPLACING THE STYLUS



Replace the stylus after about 400 hours of use because using a worn stylus will damage records. An CN-234 replacement stylus is available at your Sony dealer.

Be sure to turn the amplifier off before proceeding with replacement.

1 While holding the cartridge, detach the stylus assembly as illustrated.

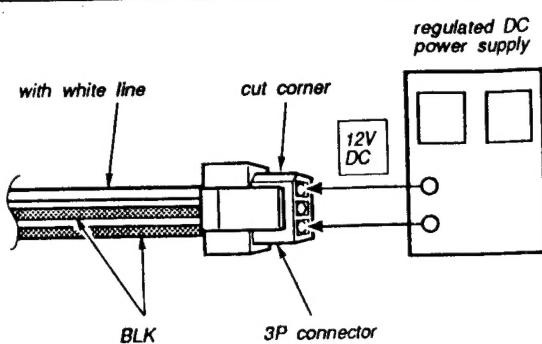
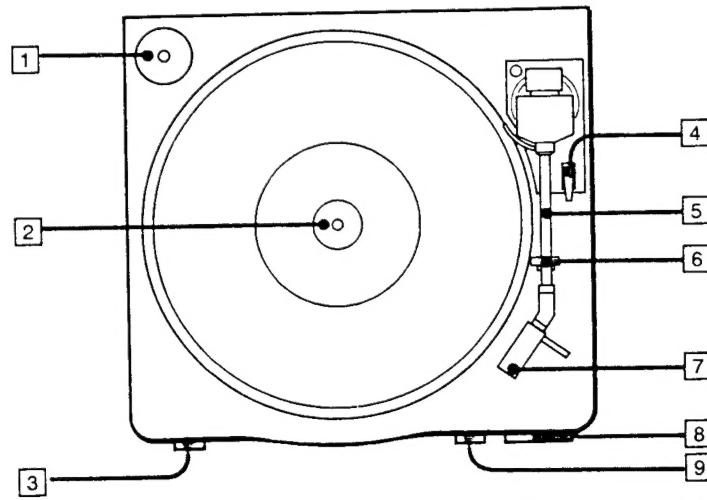
2 Insert the new stylus into the cartridge.

STEREO TURNTABLE SYSTEM
SONY[®]



REPAIRING PRECAUTION (PS-LX49P only)**[To supply B+ voltage]**

The power of this unit is fed from HST model. Because of this, connect the regulated power supply as illustrated right when this unit alone operates.

**LOCATION OF CONTROLS**

- 1** 45-rpm adaptor
- 2** Center spindle
- 3** POWER switch (PS-LX49 only)
- 4** Cueing lever
- 5** Tonearm
- 6** Arm rest
- 7** Cartridge
- 8** REJECT button
- 9** Speed selector

SS-D11/D22

SERVICE MANUAL

*E Model
Australian Model*

SPECIFICATIONS

Speaker system	3-way
Speaker units	Woofer: 17cm cone type Mid-range: 6.5cm cone type Tweeter: 2cm ceramic type (D11) Tweeter: 6.5cm cone type (D22)
Enclosure type	Bass reflex
Sensitivity	89dB/W/m
Frequency range	50—20,000Hz
Rated impedance	6 ohms
Dimensions	Approx. 260x441x185mm (w/h/d) (D11) Approx. 280x470x185mm (w/h/d) (D22)
Weight	Approx. 4.3kg per speaker (D11) Approx. 5.2kg per speaker (D22)

Design and specifications subject to change without notice.

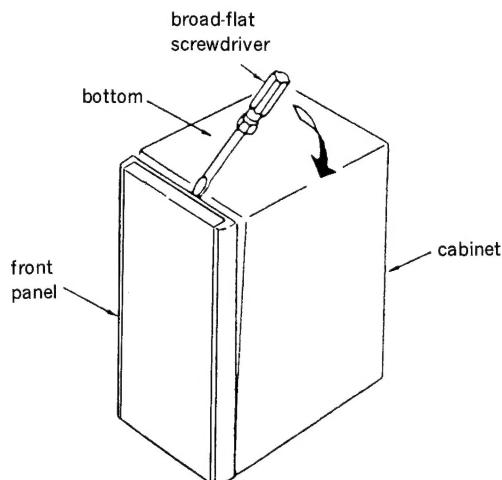


photo: SS-D11

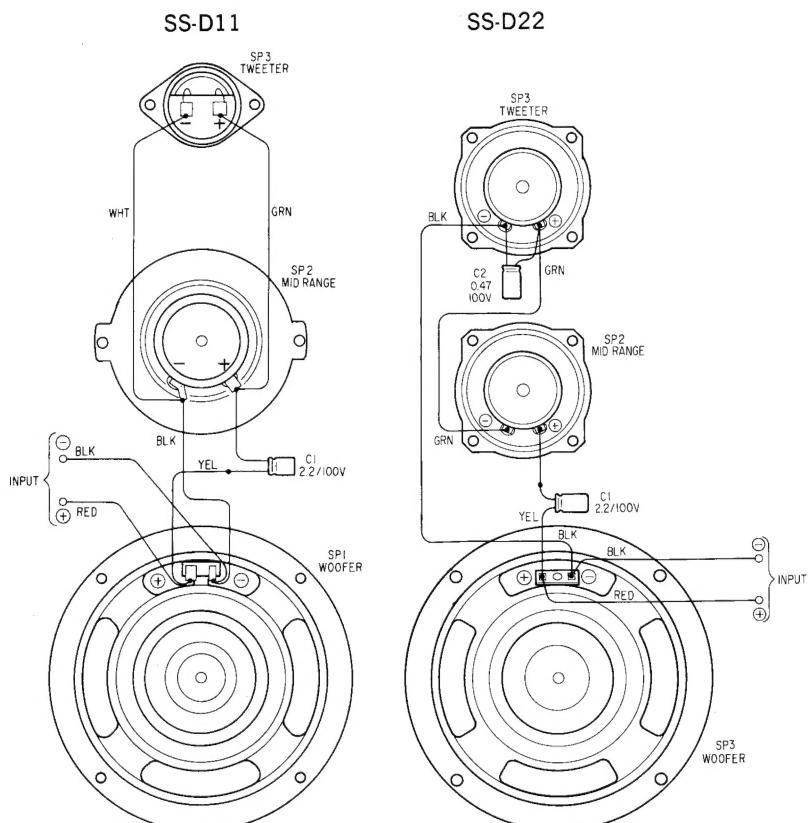
This set is the speaker system in LBT-A10,
LBT-A20, LBT-A10K and LBT-A20K.

2. WIRING DIAGRAM

1. FRONT PANEL REMOVAL



Note: Be careful not to scratch the cabinet.



SPEAKER SYSTEM
SONY®

3. EXPLODED VIEW AND PARTS LIST

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

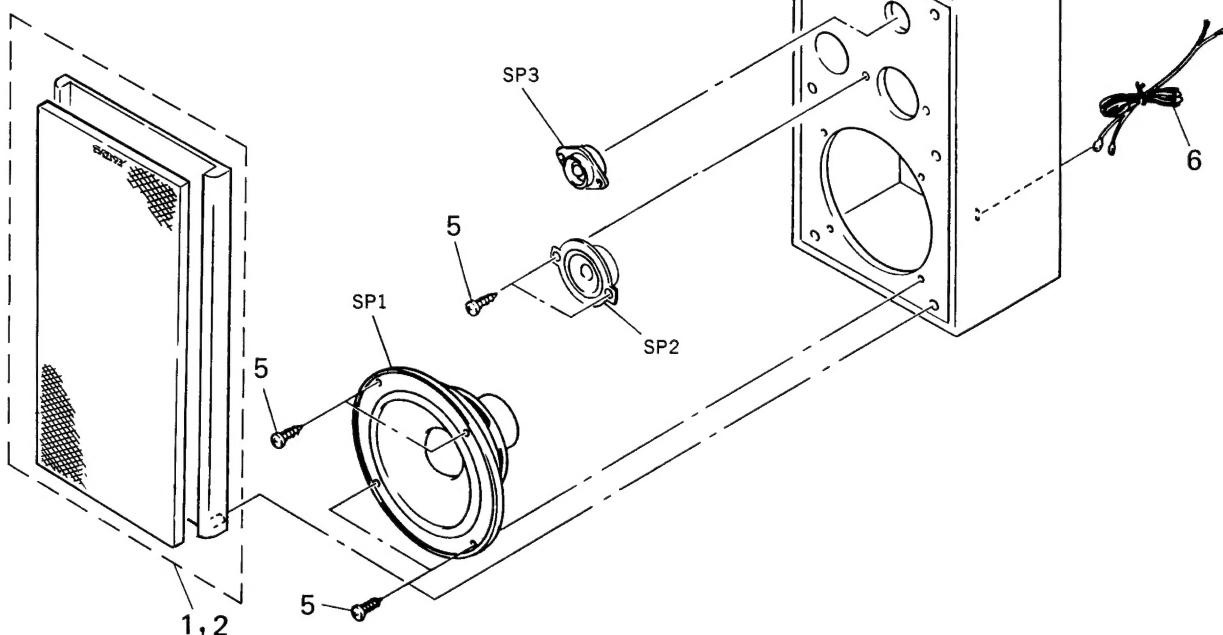
- XX, -X mean standardized parts, so they may have some differences from the original one.

- Color Indication of Appearance Parts
Example:

KNOB, BALANCE (WHITE)...(RED)

↑
Parts Color Cabinet's Color

Illust: R-CH



Ref.No	Part No.	Description	Remark
1	X-4942-232-1	PANEL (L) ASSY, FRONT (D11)	
1	X-4942-226-1	PANEL (L) ASSY, FRONT (D22)	
2	X-4942-233-1	PANEL (R) ASSY, FRONT (D11)	
2	X-4942-227-1	PANEL (R) ASSY, FRONT (D22)	
3	X-4941-381-1	CABINET (L) ASSY, SPEAKER (D11)	
3	X-4942-229-1	CABINET (L) ASSY, SPEAKER (D22)	
3	*X-4942-901-1	CABINET (L) ASSY, SPEAKER (D11) (THAILAND)	
3	*X-4942-907-1	CABINET (L) ASSY, SPEAKER (D22) (THAILAND)	
4	X-4941-382-1	CABINET (R) ASSY, SPEAKER (D11)	
4	X-4942-230-1	CABINET (R) ASSY, SPEAKER (D22)	
4	*X-4942-904-1	CABINET (R) ASSY, SPEAKER (D11) (THAILAND)	
4	*X-4942-908-1	CABINET (R) ASSY, SPEAKER (D22) (THAILAND)	
5	4-874-614-61	SCREW (M3.5X16)	
6	1-575-696-11	CORD, SPEAKER (WITH (C)) (D11)	
6	1-575-697-11	CORD, SPEAKER (WITH (C)) (D22)	

Ref.No	Part No.	Description	Remark
SP1	1-544-451-11	SPEAKER (16CM) (D11)	
SP1	1-544-746-11	SPEAKER (16CM) (D22)	
SP1	1-544-269-11	SPEAKER (16CM) (D22) (THAILAND)	
SP2	1-544-452-21	SPEAKER (6CM) (D11)	
SP2	1-544-726-11	SPEAKER (6CM) (D22)	
SP2	1-544-205-11	SPEAKER (6CM) (D22) (THAILAND)	
SP3	1-544-453-21	SPEAKER (2CM) (D11)	
SP3	1-544-726-11	SPEAKER (6CM) (D22)	
SP3	1-544-205-11	SPEAKER (6CM) (D22) (THAILAND)	

ACCESSORY & PACKING MATERIAL

- *4-950-757-01 CUSHION
- *4-944-829-01 CUSHION (THAILAND)